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**BIG CYPRESS SWAMP JETPORT MONITORING
PROGRAM**

**Environmental Protection Agency
Athens, Georgia**

July 1971

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BIG CYPRESS SWAMP JETPORT
MONITORING PROGRAM

Annual Summary and Evaluation of Data

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Springfield VA 22151

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MONITORING PROGRAM

Annual Summary
and
Evaluation of Data

Environmental Protection Agency
Southeast Water Laboratory
Athens, Georgia
July, 1971

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SUMMARY

During the early spring of 1970 a 10,500-foot training runway located on the Big Cypress Swamp Jetport was opened for training flights. To monitor possible effects of these flights on the Big Cypress-Everglades environment, the Environmental Protection Agency and the U.S. Geological Survey established a series of 14 sampling stations in the vicinity of the jetport. This report presents the data collected at the nine stations which were sampled by EPA during the period May, 1970, through February, 1971.

The stations sampled by EPA (Figure 1) were located along the Tamiami Trail south of the training strip (Stations 3, 5 and 10), adjacent to the Loop Road south of the Tamiami Trail (Stations 6 and 11), adjacent to Levee L-28 in Conservation Pool 3 (Stations 1 and 9), and adjacent to Levee L-28 on the jetport side of the levee (Stations 7 and 8).

Water samples for chemical analyses were collected monthly from May through November, 1970, and quarterly thereafter. Biological samples were collected at six stations quarterly from May, 1970, through February, 1971.

On the basis of the first year of data collection, there were no detectable environmental perturbations resulting from the current level of usage of the training runway. This is not to be construed as meaning that the utilization of the facility is having no effect on the environment, but that the effects, if any, are at this point in time sufficiently subtle that they were not detected by the techniques utilized in the monitoring effort.

Although not related directly to the training flights, the monitoring activities did reveal some of the influences of man's activities in the aquatic environments studied. These influences included pesticides detected in several environmental and faunal compartments, water contamination by metals associated with construction activities at the jetport and water contamination with lead in areas of heavy vehicular traffic (outboard motorboats and automobiles).

Seasonal differences in water levels and water temperature, acting individually and together, had an overwhelming influence on the chemical and biological characteristics of the aquatic habitats studied. Water levels were highest in July, August and September, 1970, and minimums occurred in May, 1970, and February, 1971.

Color, turbidity, alkalies, alkaline earth metals, dissolved solids, conductivity, alkalinity, and hardness, as well as total Kjeldahl nitrogen, ammonia nitrogen, and phosphates, varied inversely with water levels. Total organic carbon (TOC) was highest in May and June, coinciding with low water levels and high biological activity, and decreased throughout the rest of the year. Nitrate-nitrate nitrogen had a seasonal distribution the inverse of that for TOC.

Spectrographic analyses for metals (suspended and dissolved) in water revealed that iron, boron, strontium, barium and manganese are common in the waters studied. Iron, cadmium, manganese and lead were frequently detected at levels in excess of those recommended for water supplies by the NTAC report. It is quite likely that the high levels detected were primarily contained in the suspended solids fraction of the samples and thus would be removed by conventional water treatment processes.

Lead was quite high as compared with other U.S. waters and was found at all but one station. Station 11, on the Loop Road, which is the station most remote from human activity, did not have detectable levels of lead at any time.

The highest levels of several metals, including iron, aluminum and lead, were detected at Station 3 (immediately adjacent to the jetport entrance road) in May at about the time that most jetport construction activities terminated. It is quite likely that airborne particulate matter from heavy vehicular traffic in and around the construction site was an important factor contributing to the high levels detected.

With the exception of a single water sample positive for dieldrin during May, there were no pesticides detected in any of the water samples collected. Toxaphene was found in Florida spotted gar at five of the six stations sampled in May. DDT and metabolites had a classical distribution in the various compartments sampled, being present in the order gar > topminnow > sediments > vegetation.

The canals at stations along the Tamiami Trail are quite shallow and the sediments are high in organic content. During May and June, with concurrent high temperatures and low water levels, these canals were choked with dense growths of submersed aquatic plants. Organic carbon, ammonia, and phosphates were at the highest levels detected at any of the stations at any time. The oxygen was completely exhausted from the water from early evening to early morning during May and June, and the banks along the canal edges were littered with dead and dying fish.

The canals along Levee L-28 were quite deep, and with the exception of Station 9 in the conservation pool, the sediments were dominated by silts and were low in organic matter. Diel studies at Station 7 adjacent to the levee detected continuously low nighttime oxygen levels (2-4 mg/l); however, no instance of oxygen depletion was recorded.

Biological samples were collected from a variety of habitats at the different stations, including canals, sawgrass marshes, spike rush marshes, and canal edges. The canal edges supported a diverse and profuse growth of emergent aquatic plants interspersed with scattered growths of submerged aquatics. The dredged portion of the canals along the Tamiami Trail supported dense growths of submerged aquatics, while the canals along Levee L-28, which were 14 to 16 feet in depth, were essentially devoid of aquatic plants.

There was a diverse association of macroinvertebrates in all habitats sampled. In the heavily vegetated habitats the fauna was dominated by the crustaceans Hyalrella azteca and Palaemonetes paludosus, while the fauna of the canal bottoms was dominated by chironomid midges.

INTRODUCTION

In January, 1970, the U. S. Departments of the Interior and Transportation, the Governor of Florida, the Dade County Port Authority, and Collier County, Florida, entered into an agreement providing for opening a newly constructed runway on the 25,000-acre Big Cypress Swamp jetport site to airline training operations. On the basis of prior agreements of these same entities, the Department of the Interior was assigned the responsibility of establishing an environmental monitoring program for the area affected by the presence and use of the existing jetport site. Accordingly, in April, 1970, the USGS and the Water Quality Office of EPA (formerly FWQA within the Department of the Interior) completed plans for the cooperative conduct of a monitoring program. Field activities were commenced during May, 1970.

The jetport site lies near the eastern edge of Big Cypress Swamp, north of the Tamiami Trail, approximately 50 miles west of Miami, Florida, and six miles north of the Everglades National Park (Figure 1). The 10,500-foot training runway is oriented in an east-west direction approximately one mile north of the Tamiami Trail.

The combined efforts of USGS and EPA consist of a program of sampling at a network of 14 stations located in the vicinity of the jetport site. Stations were selected to represent habitats which may be affected by flight operations by virtue of their close proximity to the training strip and/or are in the "downstream" portion of the drainage system which may receive polluting substances from jetport operations.

This report is a compilation of data collected by EPA at nine of the selected stations during the first year of monitoring, together with a brief summary and evaluation of those data.

15

81,000

Scale
1-250,000

Sampling Stations

THE EVERGLADES

Tamiami Canal

5

Br. #86

10

Br. #105

3

Br. #112

11

Gun Slough
Bridge

6

Structure
#12A

County
Line

1

13

Point
Snake
Key
Lakes
Key
Alligator
Creek
Alligator
Bay
Bull
Key
Worm
Key

EVERGLADES JETPORT
VICINITY MAP
ENVIRONMENTAL PROTECTION AGENCY
SOUTHEAST WATER LABORATORY

Fig. 1

METHODS

Initially, water samples for chemical analyses were collected monthly and biological samples quarterly. This sampling program was conducted from May, 1970, through November, 1970, when, by prior agreement between EPA and USGS, the sampling frequency was reduced to quarterly for water chemistry and semi-annually for biology.

Detailed information on sampling frequency, field sampling methods for both water and biota, and parameters sampled are presented in Appendix A. All chemical analyses were conducted using methods as recommended in the manual "FWPCA Methods for Chemical Analysis of Water and Wastes," Cincinnati, Ohio, November, 1969.

DESCRIPTION OF STATIONS

The nine stations sampled (Figure 1) may conveniently be divided into four groups:

1. Tamiami Trail Stations - 3, 5, and 10
2. Loop Road stations - 6 and 11
3. Levee L-28 stations in conservation pool 3A - 1 and 9
4. Levee L-28 stations adjacent to Jetport property - 7 and 8

Tamiami Trail Stations

Station 3 - Lat. $25^{\circ}49'55''$, Long. $80^{\circ}54'45''$

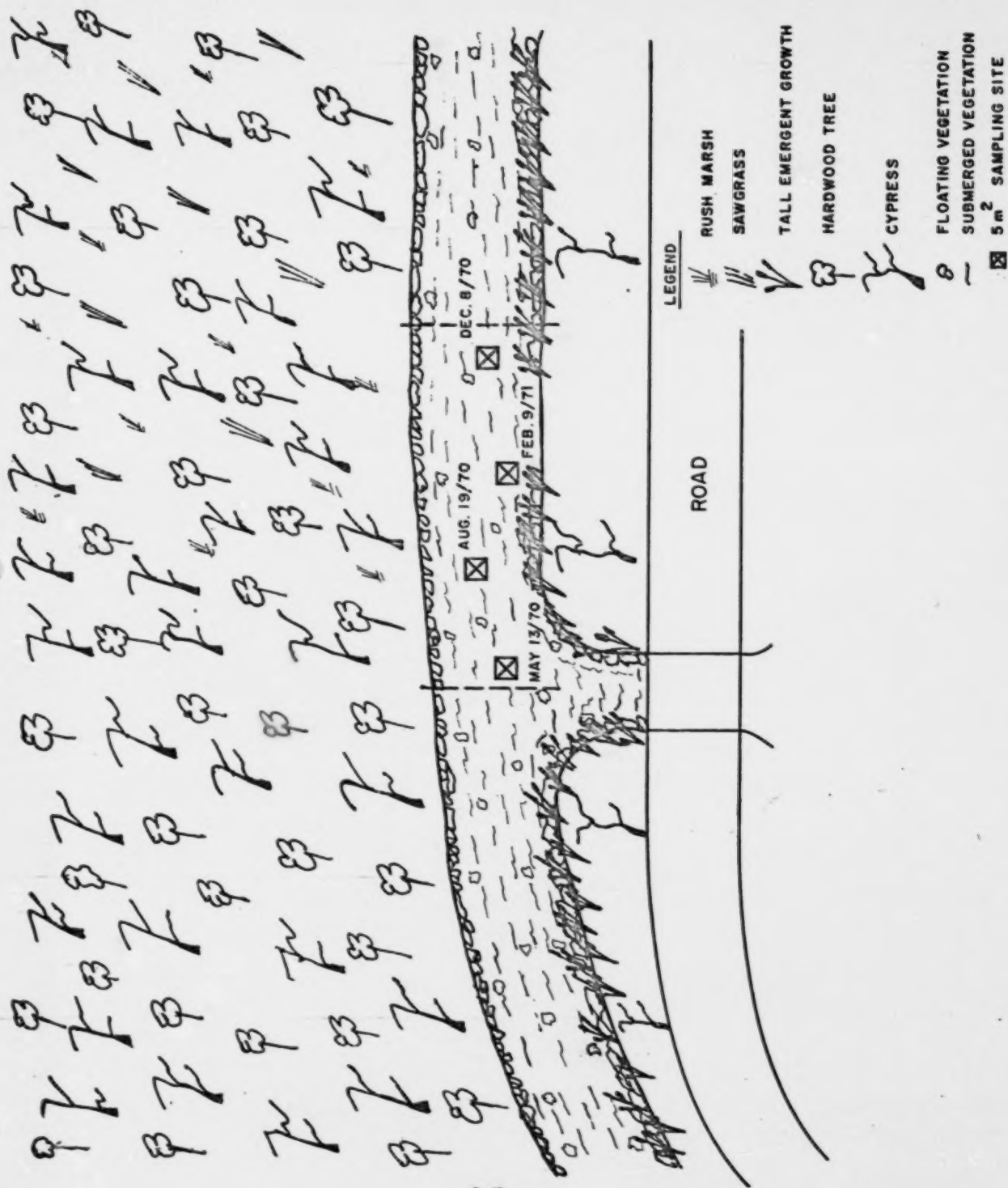
This station is located on the north side of the Tamiami Trail adjacent to bridge #112. Coast and Geodetic Survey marker #K248 is at the northwest corner of this bridge.

The only aquatic habitat at this station is the canal proper, and water, sediment, and biota were all collected from the canal immediately adjacent to the bridge (Figure 2).

Water depth (6.2 feet maximum in August) varied with season (Figure 3), but was quite shallow compared with the canals along Levee L-28. The substrate averaged approximately 49 per cent organic matter, was very low in clay, and contained moderate amounts of finer sands and silt (Table 1).

Although color and turbidity were at all times quite low with concomitant high light transmission, there was a distinct seasonal difference associated with water levels (Tables 2 and 3 and Appendix B). Color and turbidity varied inversely, and light transmission varied directly with water levels.

FIG. 2
OVERHEAD VIEW OF STA. 3
EVERGLADES JETPORT STUDY



APPROX. SCALE: 1"=10 METERS

BOTTOM PROFILE AND WATER
LEVELS AT STATION 3
EVERGLADES JETPORT STUDY

FIG. 3



0000 MAY - MAX. DEPTH - 4'5"
 ---- AUG - MAX. DEPTH - 6'1"
 XXXX DEC - MAX. DEPTH - 4'2"
 ---- FEB - MAX. DEPTH - 3'4"

Table 1

SEDIMENT SIZE SUMMARY
JETPORT SURVEILLANCE 1970-1971

	Inorganic Components - % Total Weight (Rounded to Nearest Tenth)								Organic Components
	Granule	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt	Clay	
Station 1									
August	1.4	2.6	5.5	12.2	29.9	12.4	1.5	21.7	12.5
December	.69	.93	1.5	3.5	9.3	8.4	3.0	57.0	15.7
February	3.8	2.0	3.9	12.9	4.8	9.6	5.3	43.6	14.0
Station 3									
August	2.6	2.3	6.1	13.5	19.1	12.6	4.6	19.6	43.9
December	.19	.23	.74	10.9	18.4	9.1	1.9	5.6	52.8
February	.89	.62	1.9	7.1	15.2	8.8	6.0	10.5	49.0
Station 7									
August	.06	.24	.50	4.2	18.8	7.3	10.3	49.2	9.4
December	.00	.02	.06	.64	5.9	19.2	.76	48.1	25.4
February	.11	.40	.34	2.1	9.1	21.1	1.8	50.4	14.6
Station 9									
August	Lost	.54	1.3	4.1	11.9	20.4	2.4	35.1	24.3
December	.01	.09	.28	1.8	14.2	21.7	2.6	19.6	39.7
February	.15	.16	.46	2.2	13.9	21.4	4.0	21.6	36.1
Station 10									
August	1.9	.98	2.8	12.5	Lost	17.4	1.8	24.6	38.0
December	1.5	.91	3.0	10.5	27.0	12.2	2.8	15.9	36.7
February	.75	.57	1.8	14.1	10.6	19.4	1.3	10.1	41.3

Table 2

LIGHT TRANSMISSION PROFILES
EVERGLADES BIG CYPRESS SWAMP JETPORT STUDY

Depth	Station														
	1			3			7			9			10		
	May	Aug	Dec	May	Aug	Dec	May	Aug	Dec	May	Aug	Dec	May	Aug	Dec
6"		99	83		100*	66		100*	73		100*			100*	93
2'	100*		53	43		42	82	81	47	75			52		85
3'	100			27		28	56			59			14		75
4'			40		77			47	33					42	
5'	56				58										
6'		32	27					29	19		32			30	
8'			19					18	13						
10'			12					11	8						
12'		3	8					12	6		21				
14'			4					12	3						
16'			5												

* Photometer reading in excess of 100% due to characteristics of photocells.

Table 3

MONTHLY WATER LEVEL (FEET ABOVE MEAN SEA LEVEL)
AS RECORDED BY
USGS GAGES AT BRIDGE #105
ON TAMiami TRAIL AND IN CANAL ADJACENT
TO LEVEE L-28

DATE	Station 10 (Bridge #105)	Levee L-28 (Cons. Area #3)
May 12	6.41	
Jun 16	7.77	
Jul 14	8.65	10.63
Aug 19	8.23	10.38
Sep 22	8.17	10.32
Oct 16	7.93	10.44
Nov 17	7.51	9.88
Dec 8	6.78	9.50
Feb 9	5.56	8.82

20<

Station 5 - Lat. 25°51'15", Long. 81°13'15"

This station is located on the north side of the Tamiami Trail adjacent to bridge #86. This is the Turner River and is 8.1 miles west of Monroe Station. This station was established for the collection of water samples only.

Station 10 - Lat. 25°49'30", Long. 80°59'45"

This station is in the headwaters of Gum Slough and is located on the north side of the Tamiami Trail in the vicinity of Bridge #105.

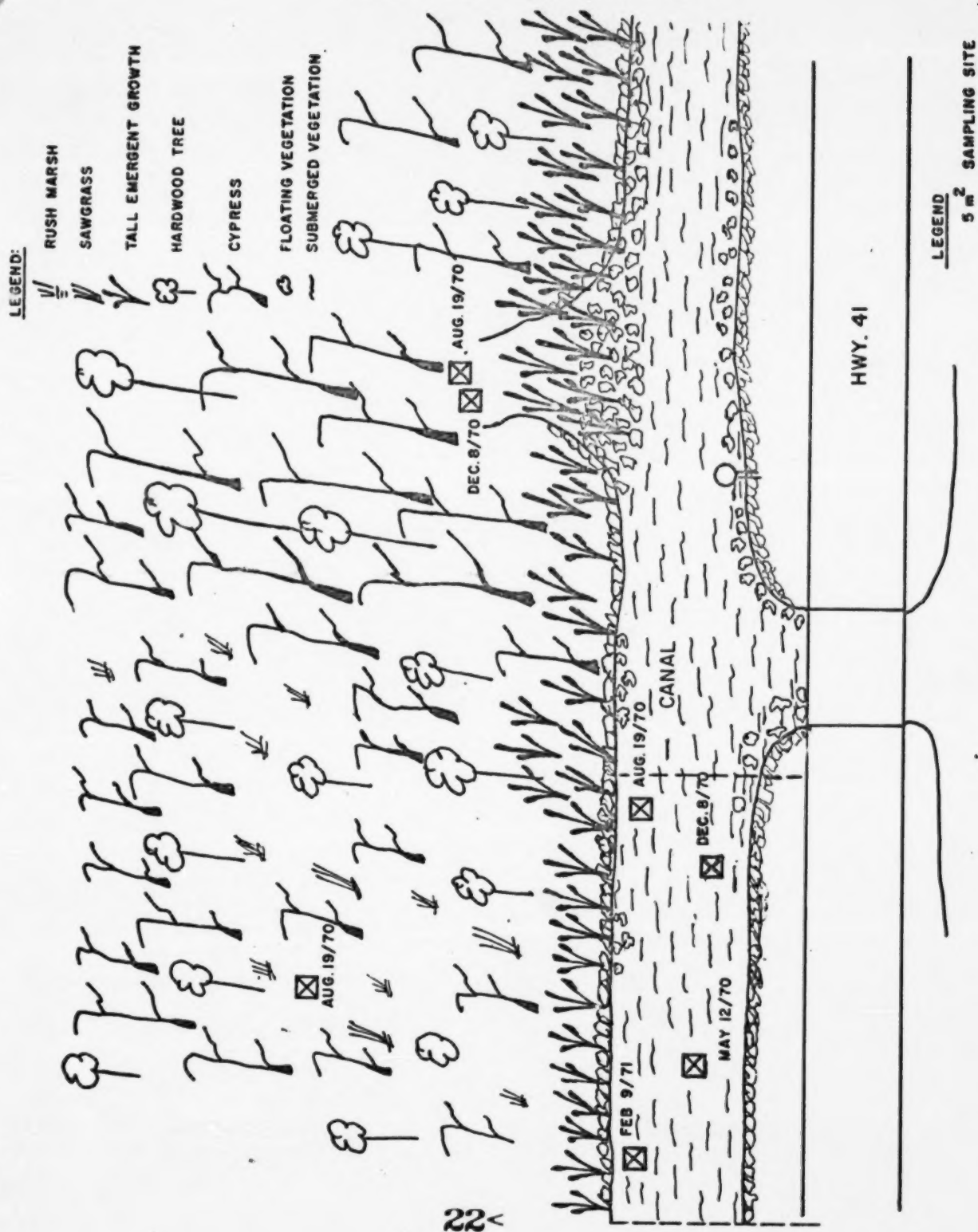
During periods of high water levels there are three aquatic habitats at this station: the canal proper, Gum Slough, and a low marshy area northwest of the canal and bridge which appears to have been the old channel of the slough (Figure 4). The latter area was only sampled when the highest water levels occurred in August. The slough was sampled in August and December, while the canal was sampled each time a trip was made to the area. The Tamiami Canal at this station is also quite shallow, having a maximum depth of only six feet when water levels were highest in August (Figure 5). The substrate was very similar to that found at the other Tamiami Canal station and was composed predominantly of organic materials with moderate levels of medium to fine sand and silt (Table 1). The water at this station was very similar to that at Station 3, being slightly stained (mean color was approximately 28 units) and had very low turbidity (Table 5). The seasonal differences in color and turbidity are well illustrated by the differences in transparency with the highest levels occurring in August and coinciding with maximum water levels (Tables 2 and 3).

Loop Road Stations

Station 6 - Lat. 25°43'15", Long. 80°52'20"

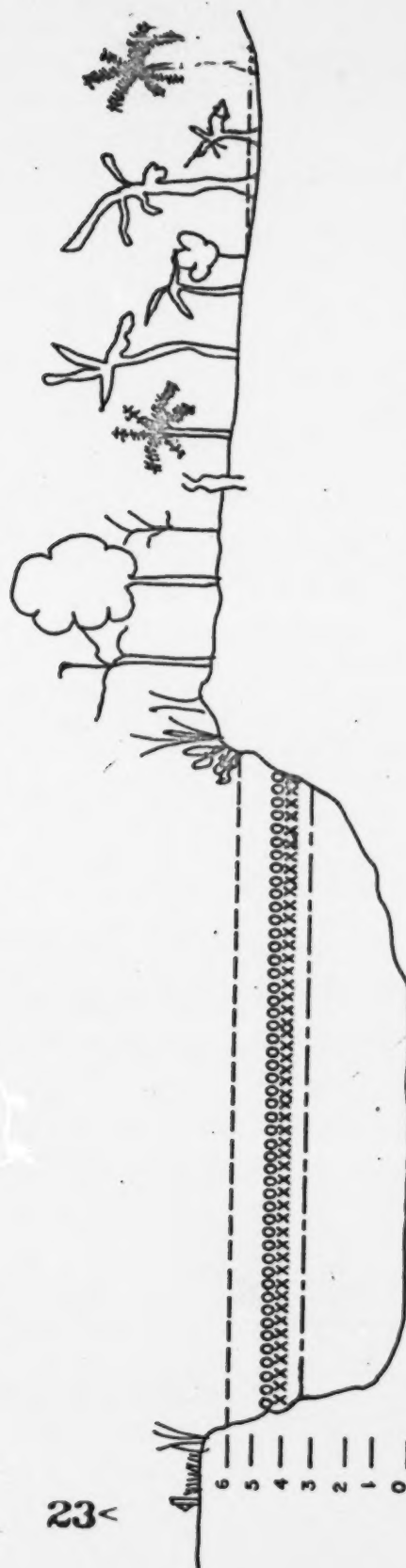
This station is at a bridge on the Loop Road, 2.9 miles west of 40-mile bend at the Dade-Collier county line (Figure 1). This station was utilized

FIG. 4
OVERHEAD VIEW OF STA. 10
EVERGLADES JETPORT STUDY



BOTTOM PROFILE AND WATER
LEVELS AT STATION 10
EVERGLADES JETPORT STUDY

FIG. 5



OOO MAY - MAX. DEPTH - 4.5"
--- AUG. - MAX. DEPTH - 6.0"
XXX DEC. - MAX. DEPTH - 4.2"
--- FEB. - MAX. DEPTH - 3.4"

for water sampling only. Samples were collected from the canal at the northeast corner of the bridge.

Station 11 - Lat. $25^{\circ}45'50''$, Long. $81^{\circ}4'30''$

This station is also on the Loop Road and is at the bridge where Gum Slough crosses Loop Road approximately six miles south of the Tamiami Trail (Figure 1). This station was utilized for the collection of water samples only.

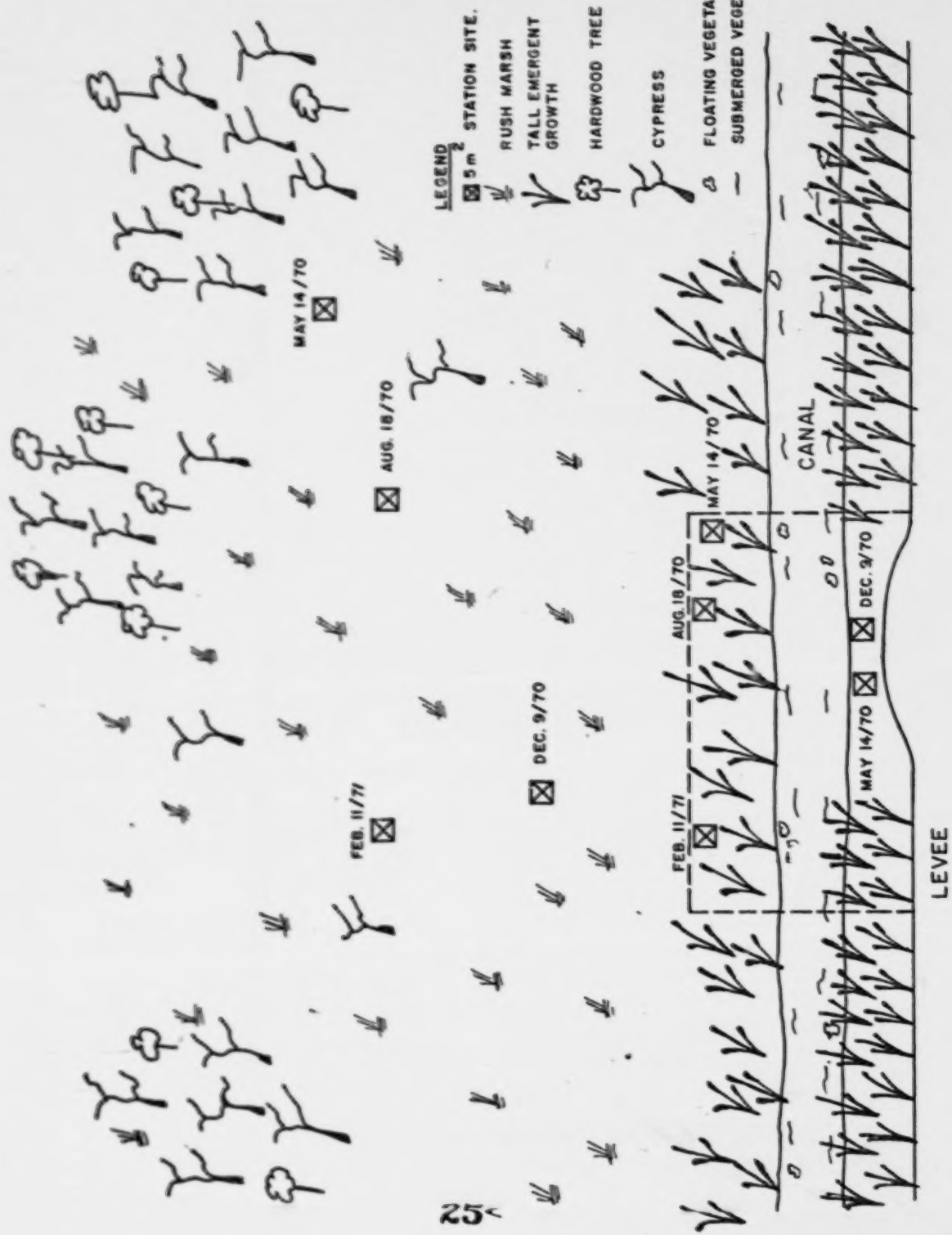
Levee L-28, Conservation Pool 3A

Station 1 - Lat. $25^{\circ}44'15''$, Long. $80^{\circ}48'45''$

Water samples from this station were collected on the north side of Highway 41 just upstream of the west end of water control structure 12A. Biological sampling was conducted on the northeast side of Levee L-28 approximately 0.8 mile west of the Levee L-28 gate. Three aquatic habitats were sampled at this station including, the canal proper, the canal edges, and extensive shallow flooded flats east of the canal (Figure 6). The edges of the canal ranged from a few inches to 18 inches in depth and were characterized by an abundance of emergent aquatic plants, such as pickerelweed, cattails, and arrowhead. The shallow flooded flats east of the canal had sparse growths of spike rush which were coated with dense growths of epiphytic algae. The porous limestone substrate on the flats was overlain by a six- to eight-inch layer of flocculent material composed almost exclusively of former growths of the epiphytic algae.

The canal at this station had the greatest depth of any station sampled and in August was 17.7 feet deep in the center (Figure 7). Compared with the Tamiami Trail stations, the organic content of the substrate in this canal was quite low and was composed primarily of silts with considerable

FIG. 6
OVERHEAD VIEW OF STA. 1
EVERGLADES JETPORT STUDY



APPROX. SCALE: 1" = 10 METERS

BOTTOM PROFILE AND WATER
LEVELS AT STATION I
EVERGLADES JETPORT STUDY

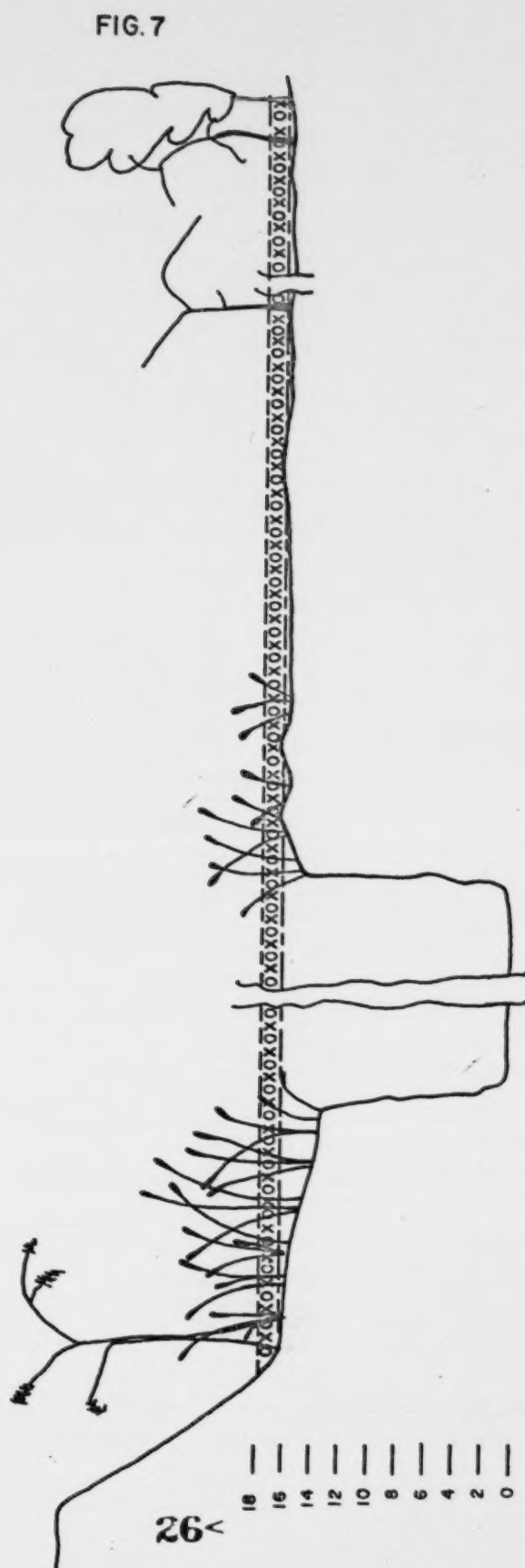


FIG. 7

--- AUG. - MAX. DEPTH - 17.7"
XXXX DEC. - MAX. DEPTH - 17.1"
OOOO MAY - MAX. DEPTH - 17.1"
--- FEB. - MAX. DEPTH - 16.1"

quantities of medium to very fine sands (Table 1). The water color and turbidity at this station were lower and the transparency higher than at any other station sampled (Tables 2 and 5).

Station 9 - Lat. 25°52'45", Long. 80°49'35"

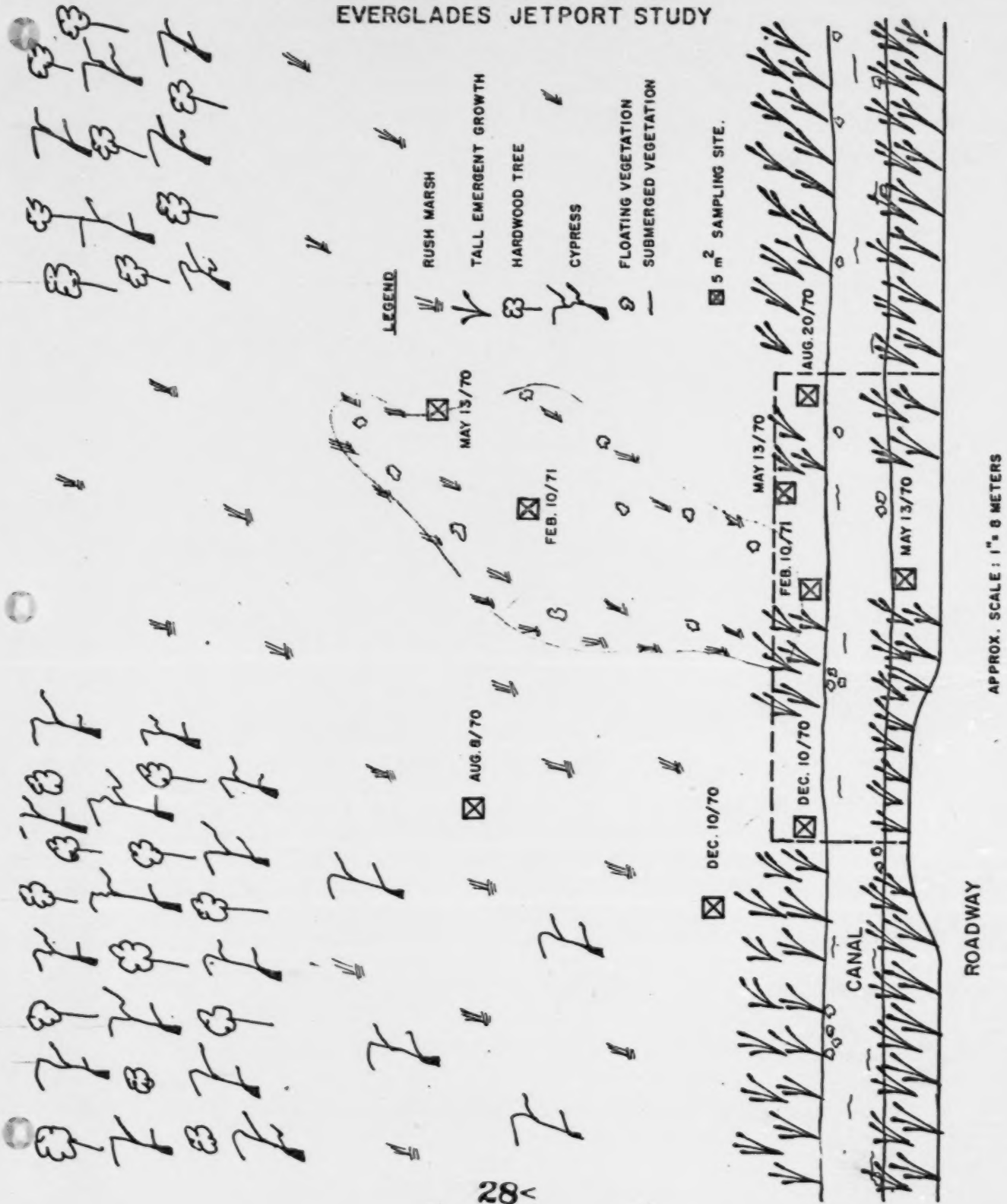
This station is located in the conservation pool (east side of Levee L-28) and is just a short distance north of the point where the levee canal changes from the west to the east side of the levee. The three aquatic habitats sampled at this station, canal proper, canal edge, and flooded marsh, were almost identical to the habitats sampled at Station 1 (Figure 8). Maximum water depth of the canal at this station during the August sampling period was 13.9 feet (Figure 9). The substrate in the canal at this station had as high as 40 per cent organic matter mixed with moderate amounts of fine sands and silt (Table 1). In the flooded marshy section of the area, the porous limestone was overlain by peat layers from six to 12 inches in depth. The peat was overlain by a very thin layer (approximately $\frac{1}{2}$ inch deep) of flocculent material composed of dead epiphytes. The flooded marshy area at this station is quite shallow (approximately 12 inches in depth in May) and during the minimum water levels which occurred in February most of the marsh was dry land.

Levee L-28, Jetport Side

Station 7 - Lat. 25°47'5", Long. 80°51'00"

This station is on the west side of Levee L-28 at the first turn-around south of an FCD water-level gauge. Three aquatic habitats were sampled at this station including the canal proper, the canal edges, and extensive shallow flooded flats to the west of the canal on which sawgrass was the

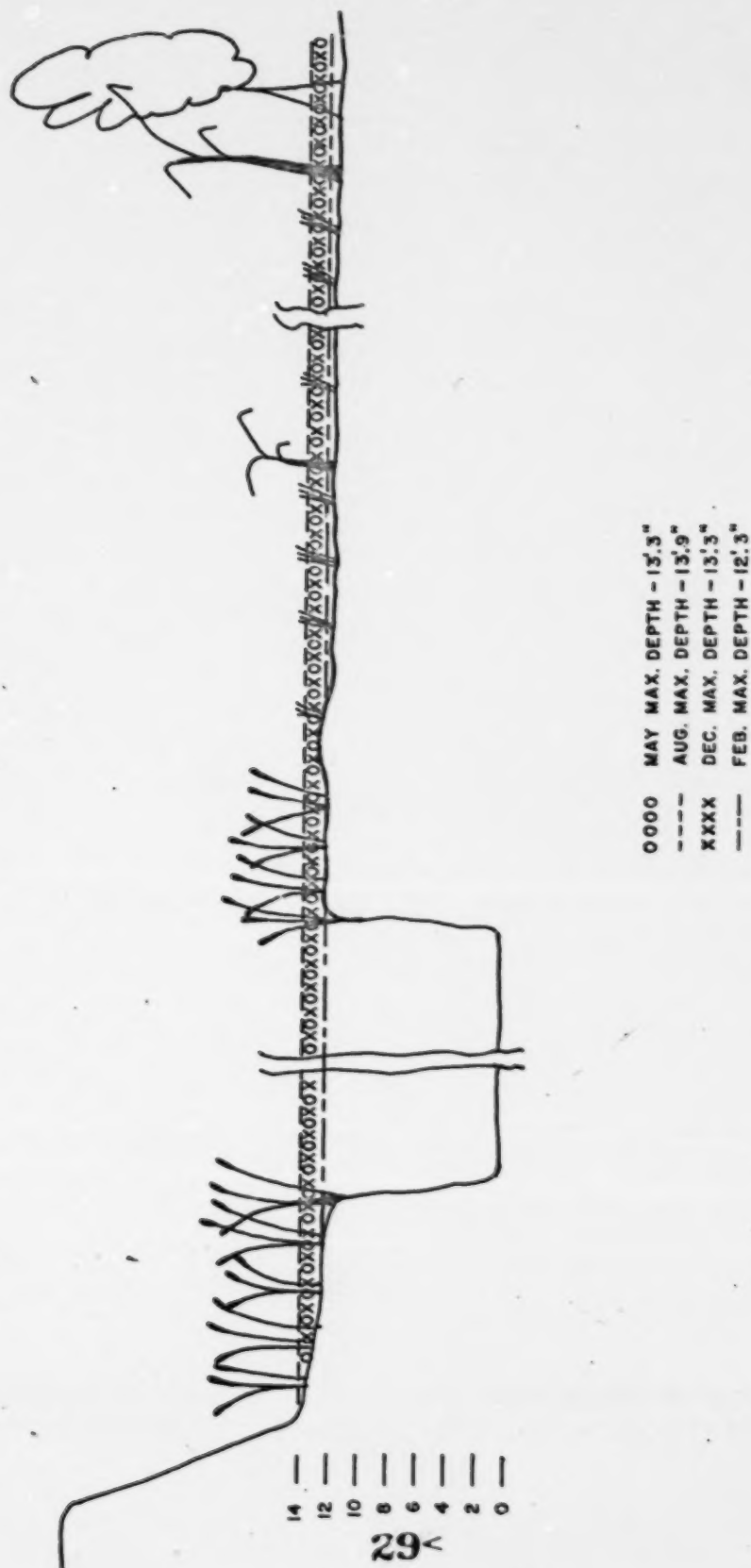
FIG. 8
OVERHEAD VIEW OF STA. 9
EVERGLADES JETPORT STUDY



APPROX. SCALE: 1" = 8 METERS

BOTTOM PROFILE AND WATER
LEVELS AT STATION 9
EVERGLADES JETPORT STUDY

FIG. 9

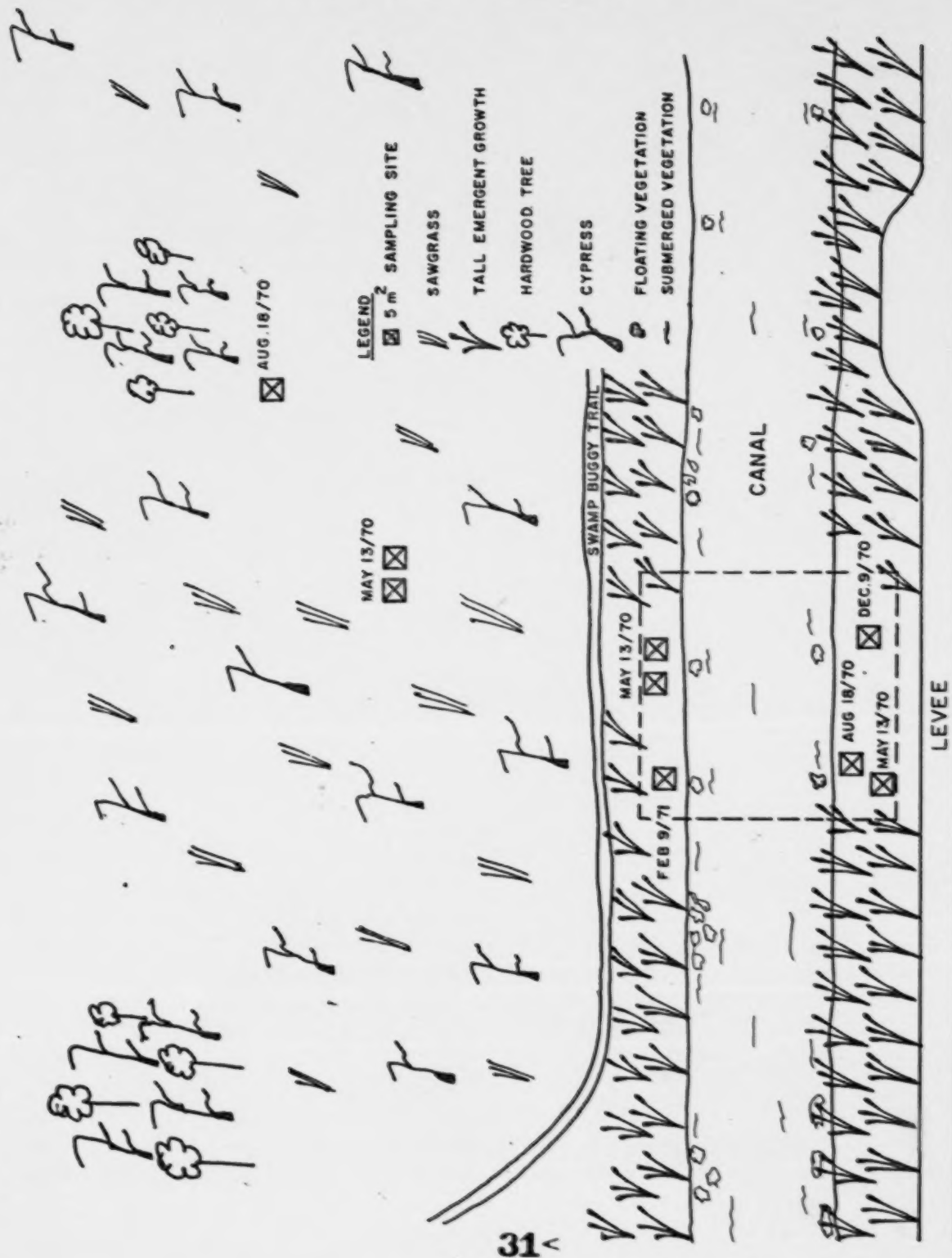


dominant aquatic vegetation (Figure 10). The maximum depth in August in the canal at this station was 14.4 feet (Figure 11), and the substrate was composed primarily of silt with moderate amounts of organic matter and finer sands (Table 1). This station and the other station on the Jetport side of Levee L-28 (#8) had consistently higher turbidity levels than the other stations sampled (Table 5).

Station 8 - Lat. 25°51'41", Long. 80°50'10"

Water samples at this station were collected from the canal on the west side of Levee L-28 adjacent to the cross-over where the canal changes from the west to the east side of the levee. Biological sampling was conducted north of this point and directly opposite the site where Station 9 is located. There is no canal in the area where the biological sampling was conducted, and the area is characterized by shallow flats with scattered stunt cypress and extensive beds of sawgrass interspersed with large areas where spike rush is the dominant aquatic vegetation (Figure 12). Biological samples were collected in the area dominated by sawgrass and in the area dominated by spike rush. The area is quite shallow, ranging in depth from 12 to 14 inches, and at the time of the February sampling was dry (Figure 13).

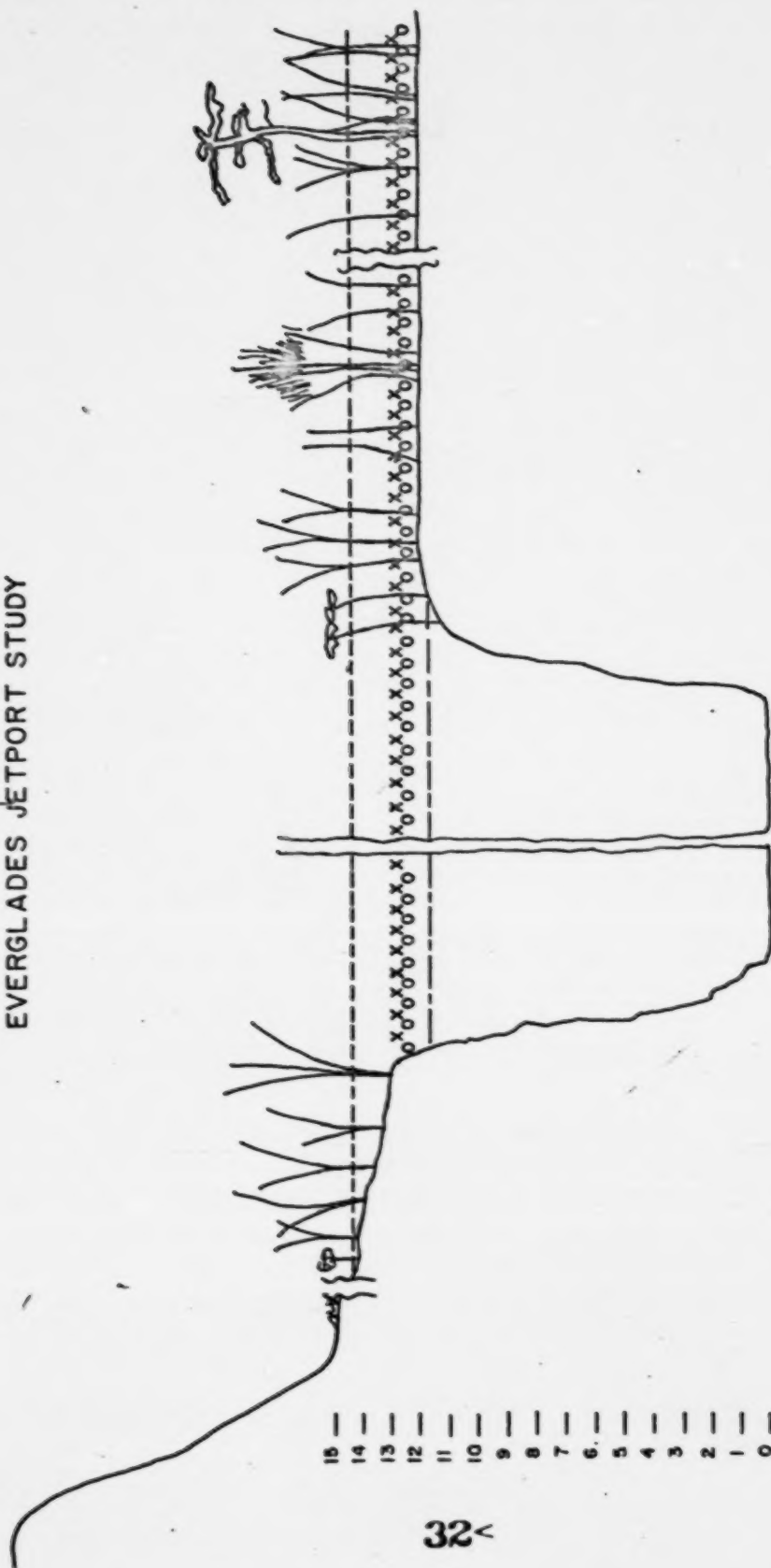
FIG.10
OVERHEAD VIEW OF STA. 7
EVERGLADES JETPORT STUDY



APPROX. SCALE: 1" = 15 METERS

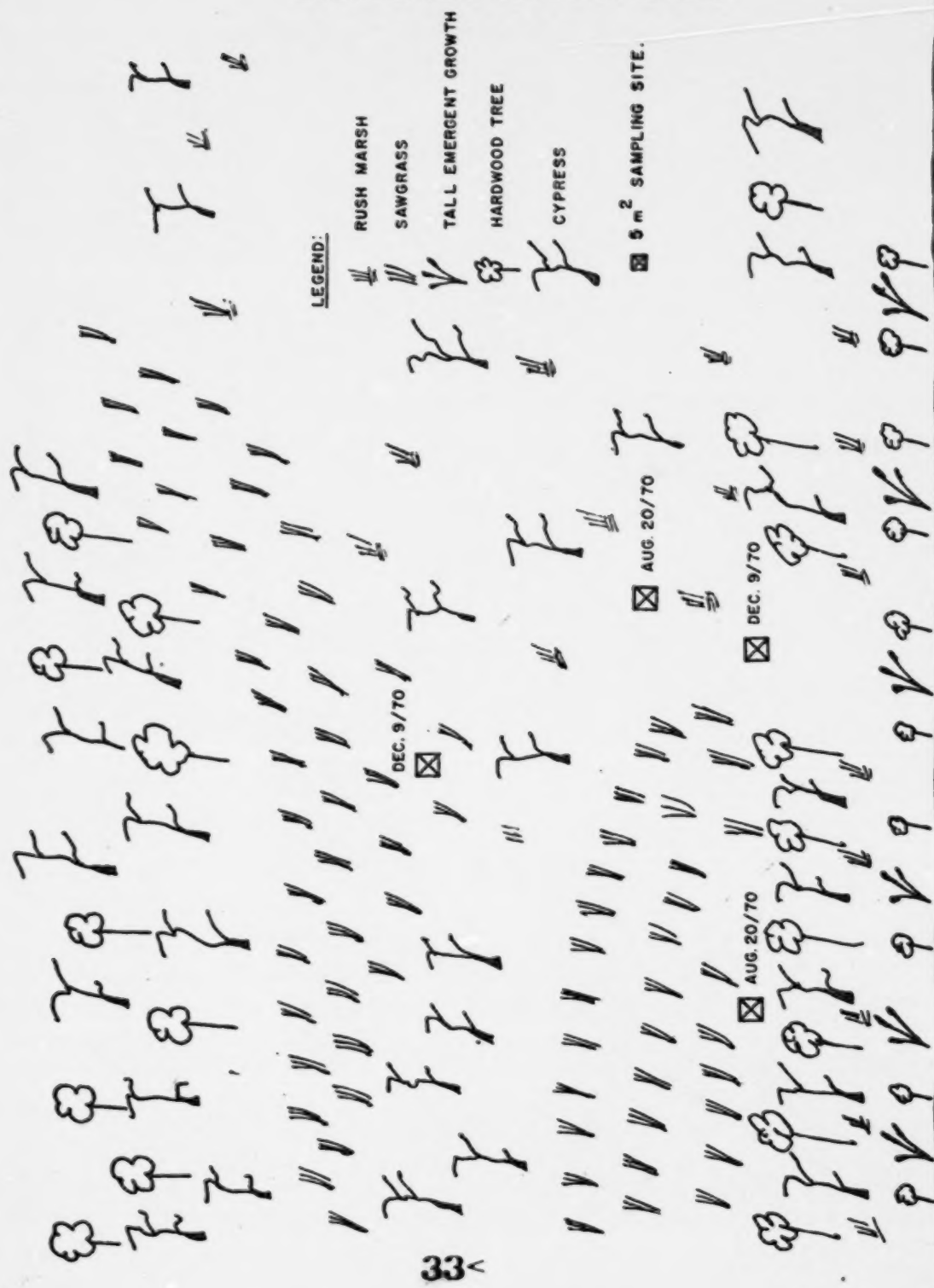
BOTTOM PROFILE AND WATER
LEVELS AT STATION 7
EVERGLADES JETPORT STUDY

FIG. II



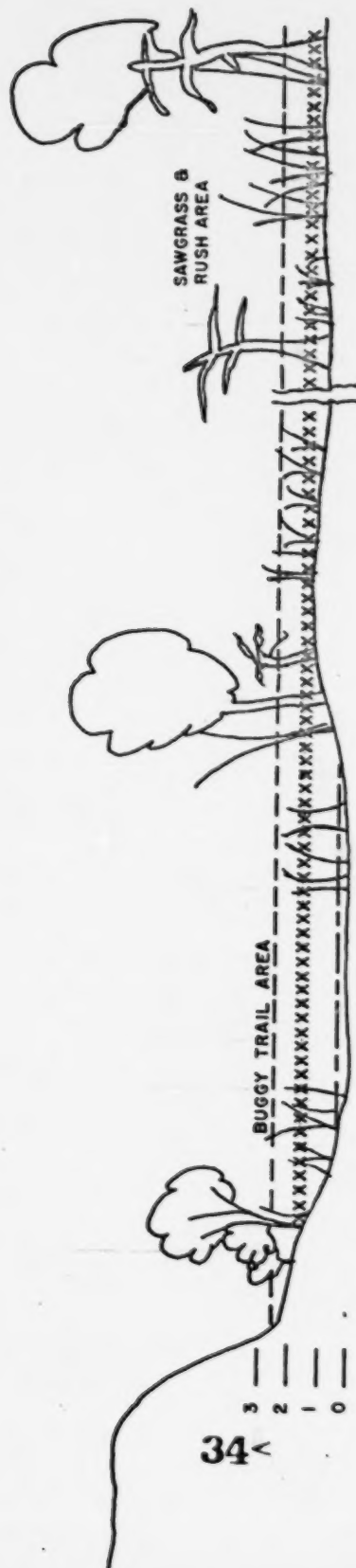
0000 MAY MAX. DEPTH 12.9"
 XXXX AUG. MAX. DEPTH 14.4"
 XXXX DEC. MAX. DEPTH 12.6"
 XXXX FEB. MAX. DEPTH 11.8"

FIG.12
OVERHEAD VIEW OF STA. 8
EVERGLADES JETPORT STUDY



APPROX. SCALE: 1" = 30 METERS

BOTTOM PROFILE AND WATER
LEVELS AT STATION 8
EVERGLADES JETPORT STUDY



----- AUG. MAX. DEPTH - (SAWGRASS & RUSH) 15" - (BUGGY TRAIL) 30"
 XXXX DEC. MAX. DEPTH - (SAWGRASS & RUSH) 6" (BUGGY TRAIL) 22"
 ---- FEB. MAX. DEPTH - (SAWGRASS & RUSH) 0" (BUGGY TRAIL) 3"

CHEMICAL PARAMETERS

Alkali and Alkaline Earth Metals (Ca, Mg, Na, K)

The four major cations (calcium, magnesium, sodium, and potassium) were present in the order $\text{Ca} > \text{Na} > \text{Mg} > \text{K}$. This relationship was constant during all months and at all stations. The high proportion of sodium in these hard waters is somewhat unusual, since it has been reported by several authors (1, 2) that in hard waters the relationship is normally $\text{Ca} > \text{Mg} > \text{Na} > \text{K}$.

The range of monthly mean levels for these major cations was: Ca, 32-62 ppm; Na, 7-15 ppm; Mg, 1.7-3.5 ppm; K, 1.0-2.5 ppm (Table 4). Minimum values generally coincided with maximum water levels in July, August, and September, while maximum values were detected in February when water levels were at a minimum.

Station 8 on the jetport side of Levee L-28 had higher levels of Mg, Na, and K than any of the other stations sampled.

Dissolved Solids and Conductivity

For all stations sampled over the ten months of data collection, the range of dissolved solids was 107-501 mg/l (Table 5). Although there was considerable overlap in the range of maximum-minimum values for the different stations, the mean dissolved solids from Station 1 and 9 in conservation pool 3 were lower than other stations sampled. Stations 7 and 8 in the canal on the jetport side of Levee L-28 had the highest levels of dissolved solids, while the Tamiami Trail and Loop Road stations were intermediate. There was a distinct monthly variation in dissolved solids with highs in June, November, and February, and lows in July, August, and October (Figure 14). High values coincided with low water levels and low rainfall, while low values occurred after periods of high rainfall with coincident high water levels in the canals and marshes.

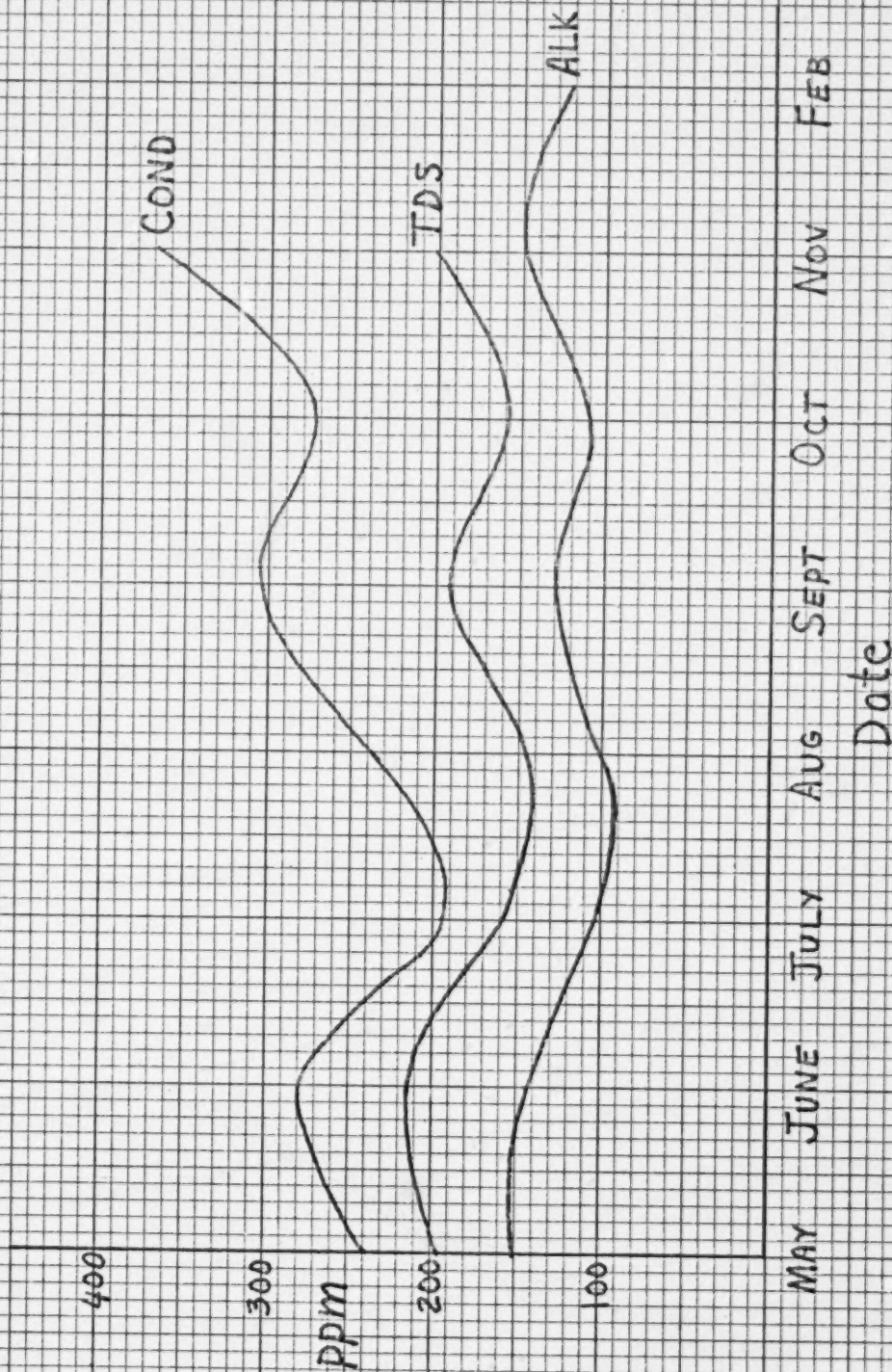
Table 4

SEASONAL MEAN VALUES (ppm) OF
CALCIUM (Ca), MAGNESIUM (Mg)
POTASSIUM (K) AND SODIUM (Na)

	Ca	Mg	K	Na
May	32	2.7	1.5	15
Jun	35	2.3	1.0	11
Jul	40	1.9	1.1	8
Aug	36	1.7	1.2	7
Sep	41	2.1	1.9	9
Oct	51	2.3	1.9	10
Nov	59	2.6	1.4	14
Feb	62	3.5	2.5	15

Figure 14

SEASONAL VARIATIONS IN MEAN LEVELS OF CONDUCTIVITY, TOTAL DISSOLVED SOLIDS, AND ALKALINITY



Conductivity ranged from a low of 146 micromhos (μ mhos) to a high of 505 μ mhos (Table 5). The variation of conductivity between stations and from month to month was directly proportional to the total dissolved solids (Figure 14).

Alkalinity and Total Hardness

Alkalinity (as CaCO_3) ranged from a low of 68 mg/l to a high of 105 mg/l, while total hardness (as CaCO_3) ranged from 40 to 192 mg/l (Table 5). The pattern of distribution between stations and the monthly fluctuations were identical to those described above for conductivity and dissolved solids (Figure 14).

On the basis of the levels of alkalinity, hardness, dissolved solids and conductivity, the waters sampled in the vicinity of the Everglades Jetport would be classified as moderately hard.

Chlorides and Sulfate

Chloride values fluctuated widely and in some months were quite high for fresh waters, ranging from 3 ppm to 153 ppm (Appendix B). Chloride content reached a peak in September and remained high throughout the fall and winter months. Although the severe fluctuations tend to mask differences, the chloride content at Stations 3, 8 and 10 adjacent to the Jetport appeared to be consistently higher than stations in the conservation pool and at Tamiami Trail stations more remote from the Jetport (Table 5).

There was a marked similarity in sulfate content at all stations, ranging from undetectable levels to 17 ppm, with a mean near 5 ppm (Table 5).

The chemosynthetic activity of anaerobic sulfur bacteria is strikingly shown by the monthly fluctuation in sulfate content (Appendix B). Under the anaerobic conditions existing in May and June, sulfate was virtually

Table 3

MEAN AND RANGE OF VALUES FOR PHYSICAL AND CHEMICAL DATA
MAY 1970-FEBRUARY 1971

Station	D.O. (mg/l)			Temperature (°C)			pH			Conductivity (µmhos)			Chloride (ppm)			Turbidity (JTU)		
	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
1	4.4	7.7	1.3	25.4	30.5	13.0	7.5	8.4	6.3	226	322	197	11.6	25	6	2.1	16	ND
3	3.0	8.4	0.0	24.5	30.0	11.0	7.7	8.4	6.8	206	470	160	17.1	94	6	3.8	29	ND
5	2.6	9.0	0.0	23.9	29.5	12.0	7.2	8.2	6.2	224	499	171	9.8	32	3	2.6	9	ND
6	2.1	4.2	0.5	25.1	30.5	14.0	7.5	8.3	6.8	279	505	180	19.5	47	8	2.9	12	ND
7	3.9	8.0	1.7	25.7	31.0	13.0	7.4	8.3	6.7	300	440	192	15.4	30	6	7.0	37	1.0
8	5.3	9.9	1.7	25.1	32.5	12.0	7.5	8.3	6.6	325	503	208	22.8	48	7	7.1	19	1.0
9	4.2	6.3	1.4	26.1	32.5	13.0	7.5	8.1	6.5	209	326	146	13.2	52	4	2.3	14	ND
10	1.8	9.6	0.3	24.0	30.0	10.0	7.6	8.4	6.2	277	317	168	17.5	153	3	3.0	20	1.0
11	2.4	4.7	0.6	23.4	29.0	11.0	7.5	8.4	6.7	296	512	180	12.2	41	4	3.4	34	ND

Table 5

MEAN AND RANGE OF VALUES FOR PHYSICAL AND CHEMICAL DATA
MAY 1970-FEBRUARY 1971
(Continued)

Station	Color (units)			Alkalinity (ppm CaCO ₃)			Sulfate (ppm SO ₄)			TOC (ppm)			NH ₃ (ppm)			NO ₃ -NO ₂ (ppm)		
	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
1	14.8	22	7	106.1	135	35	5.1	17	ND	11.8	19	5	.27	.98	.03	.02	.29	ND
3	24.9	47	14	106.3	154	73	5.3	10	ND	18.7	120	8	.32	2.75	.05	.02	.08	ND
5	28.5	53	13	127.4	189	101	5.3	11	ND	12.9	37	8	.24	1.21	.06	.04	.22	ND
6	19.0	26	10	130.8	167	102	5.4	9	ND	11.7	22	7	.15	.59	.01	.03	.57	ND
7	20.4	37	11	133.5	182	93	4.8	13	ND	10.9	16	8	.26	1.02	.04	.03	.25	ND
8	21.7	28	14	141.4	194	98	5.1	10	ND	14.9	30	10	.34	1.74	.03	.02	.15	ND
9	28.0	37	21	108.0	167	68	5.2	10	ND	15.0	31	9	.24	.88	.02	.03	.15	ND
10	26.0	38	17	125.7	204	88	4.9	10	ND	13.3	35	6	.32	.89	.07	.02	.05	ND
11	27.2	40	19	148.3	191	105	5.5	10	ND	11.5	32	7	.25	.55	.03	.03	.32	ND

Table 5

MEAN AND RANGE OF VALUES FOR PHYSICAL AND CHEMICAL DATA
MAY 1970-FEBRUARY 1971
(Continued)

Station	TKN (ppm)		Total PO ₄			Total PO ₄ Dissolved			Total O-PO ₄			Total O-PO ₄ Dissolved			Total Dissolved Solids*		
	Mean	Max.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
1	.92	1.80	.018	.05	ND	.029	.349	ND	.008	.025	ND	.002	.075	ND	156	250	131
3	1.17	8.05	.102	1.76	.005	.128	2.32	ND	.063	1.14	ND	.078	1.68	ND	166	277	107
5	.73	1.70	.046	.210	ND	.044	1.05	ND	.023	.151	ND	.036	.612	ND	194	388	129
6	.74	1.25	.046	.305	ND	.018	.802	ND	.031	.275	ND	.004	.036	ND	178	234	116
7	.74	2.50	.020	.045	ND	.010	.036	ND	.008	.027	ND	.003	.016	ND	197	349	139
8	.96	2.45	.059	.560	ND	.020	.063	ND	.042	.555	ND	.008	.064	ND	205	331	115
9	.82	1.30	.051	.50	ND	.047	.690	ND	.034	.475	ND	.040	.715	ND	169	501	108
10	.70	.92	.053	.312	.008	.092	1.34	ND	.028	.150	ND	.025	.139	ND	172	315	113
11	.67	1.40	.060	.54	ND	.048	.580	ND	.050	.63	ND	.038	.575	ND	191	344	117

* Does not include February

Table 5

MEAN AND RANGE OF VALUES FOR PHYSICAL AND CHEMICAL DATA
MAY 1970-FEBRUARY 1971
(Continued)

Station	Total Hardness			Mercury (ug/l)			CO ₂ * (ppm)			Iron (ppm)			Manganese (ppm)			Calcium (ppm)		
	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
1	97	128	42	.73			.45	.6	.2	.13	.47	.01	.08	.57	ND	40	56	29
3	99	138	66	.48			.82	1.9	.2	.37	2.68	ND	.06	.35	ND	40	55	27
5	121	163	89	--			1.0	2.2	.1	.08	.46	ND	.13	1.91	ND	47	90	33
6	113	148	40	--			1.4	1.9	1.0	.07	.28	ND	.08	.30	ND	52	98	28
7	120	163	80	1.2			.64	1.3	0.0	.21	.50	ND	.07	.45	ND	48	74	29
8	123	190	59	1.3			.70	1.2	.2	.20	.46	ND	.05	.22	ND	48	74	23
9	101	140	56	1.0			.49	.9	0.0	.14	.46	ND	.04	.15	ND	40	55	29
10	116	192	84	.70			.70	1.2	0.0	.03	.09	ND	.07	.43	ND	38	66	15
11	132	192	20	.55			.60	1.2	.4	.03	.10	ND	.09	.47	ND	49	80	23

* October and February only

Table 5

MEAN AND RANGE OF VALUES FOR PHYSICAL AND CHEMICAL DATA
MAY 1970-FEBRUARY 1971
(Continued)

Station	Magnesium (ppm)			Sodium (ppm)			Potassium (ppm)								
	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.
1	2.2	3.0	1.7	7.8	11	5.9	1.25	3.1	.5						
3	2.7	4.2	1.8	11.8	22	6.3	2.01	4.9	.3						
5	2.0	2.4	1.5	7.0	11	4.5	.90	2.9	.3						
6	2.6	4.3	1.8	12.4	24	7.6	1.40	3.9	.5						
7	2.9	4.2	1.8	12.9	19	1.3	1.63	3.9	.6						
8	3.3	6.0	1.9	21.4	35	5.5	2.51	6.6	1.2						
9	2.2	3.3	1.5	7.9	12	4.7	1.11	2.6	.3						
10	2.0	3.7	1.1	9.0	17	4.0	1.23	2.5	.5						
11	1.8	3.1	1.3	8.9	17	5.9	1.83	8.7	.5						

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absent and gradually increased in the late summer and fall months to levels of from 9 to 13 ppm.

Pesticides and Other Organics

Water, sediments, vegetation and fish from six stations were collected quarterly and analyzed for 18 pesticides (Table 6). In addition, monthly water samples from all stations were analyzed for fuel hydrocarbons and phenols using gas chromatography (flame ionization detector) and infrared spectrometry.

No fuel hydrocarbons or phenols were detected in any of the water samples by either of the two techniques used.

Only the May and August pesticide data are available for evaluation at this time, so no seasonal trends are apparent (Table 7).

DDT and metabolites, toxaphene and dieldrin were the only pesticides detected.

Dieldrin was detected once in a water sample from Station 8 during May (Table 7). This was the only pesticide detected in any of the water samples.

Toxaphene was present in Florida spotted gar from five of the six stations sampled during May but was not detected in water, sediments, vegetation or topminnows. The National Pesticides Monitoring Program (4) only recorded toxaphene residues in fish on one occasion from southeastern waters during 1967-68 and at a considerably lower level than detected in this study (0.03 ppm vs 0.17 ppm).

DDT and metabolites DDD and DDE were ubiquitous, being found at all stations in both May and August. The importance of the sediments as a sink for pesticides and the phenomenon of biological

Table 6MINIMUM DETECTION LIMITS OF PESTICIDES FOR
WHICH ANALYSES WERE CONDUCTED

<u>PESTICIDES ANALYZED FOR:</u>	<u>µg/l Minimum Detection Limit</u>
Aldrin	0.005
Lindane	0.002
Chlordane	0.05
Chlorobenzilate	0.5
DDD	0.01
DDE	0.01
DDT	0.02
Dieldrin	0.01
Endrin	0.02
Heptachlor Epoxide	0.01
Heptachlor	0.005
Methoxychlor	0.1
Toxaphene	0.25
Diazinon	0.2
Guthion	0.5
Malathion	0.2
Methyl Parathion	0.02
Parathion	0.04

Table 7

PESTICIDES DETECTED IN SAMPLES FROM
BIG CYPRESS SWAMP JETPORT MONITORING STATIONS
Water - $\mu\text{g/l}$, Sediments - ppb dry weight
Fish and Vegetation - ppb wet weight

	DDE			DDD			DDT			Toxaphene	Dieldrin
	May	Aug.	Mean	May	Aug.	Mean	May	Aug.	Mean	May	May
Station 1											
Water	ND	ND		ND	ND		ND	ND			
Sediment	6.2	2.8	0.45	1.5	1.4	1.4	4.5	3.4	0.4		
Vegetation	--	0.12	0.12	--	0.33	0.33	--	0.88	0.88	ND	
Topminnow	33	26	30	20	9.3	4.6	69	9.5	39	ND	
Gar	520	--	520	130	--	130	140	--	140	170 $\pm$ 35	
Station 3											
Water	ND	ND		ND	ND		ND	ND		ND	
Sediment	12.0	31.0	22	5.3	9.3	7.3	2.9	4.4	3.6		
Vegetation	0.96	0.4	0.68	0.72	0.5	0.6	1.2	1.0	1.1	ND	
Topminnow	61	8.4	35	40	6.0	23	63	8.2	36	ND	
Gar	340	280	310	67	190	128	100	130	115	95 $\pm$ 20	
Station 7											
Water	ND	ND		ND	ND		ND	ND		ND	
Sediment	4.3	6.0	5.2	ND	2.0	1.0	2.0	ND	1.0		
Vegetation	0.40	0.2	0.3	0.28	0.2	0.2	0.39	0.8	0.8	ND	
Topminnow	28	3.6	16	9.3	2.0	5.6	24	3.6	13.8	ND	
Gar	110		110	59		59	61		61	85 $\pm$ 15	
Station 8											
Water	ND	ND		ND	ND		ND	ND		ND	0.03
Sediment	6.5	6.3	6.4	6.8	15.0	10.9	3.6	ND	1.8		
Vegetation	0.38	0.1	0.2	0.43	0.2	0.3	0.67	0.3	0.5	ND	
Topminnow	43	71.	57	18	2.3	10.2	36	2.7	19.3	ND	
Gar	120		120	37		37	41		41	60 $\pm$ 10	
Station 9											
Water	ND	ND		ND	ND		ND	ND		ND	
Sediment	8.6	10.0	9.3	11.0	11.0	11.0	8.2	5.2	6.7		
Vegetation	1.0	0.2	0.6	1.9	0.2	1.0	1.8	0.6	1.2	ND	
Topminnow	15	8.7	11.4	5.6	3.0	4.3	20	4.6	12.3	ND	
Gar	--			--			--			--	
Station 10											
Water	ND	ND		ND	ND		ND	ND		ND	
Sediment	25.0	42.0	33.5	15.0	8.5	12.2	5.0	13.0	9.0		
Vegetation	0.90		0.9	1.1		1.1	1.9		1.9	ND	
Topminnow	--	14.0	14.0	--	4.2	4.2	--	5.2	5.2	--	
Gar	81	240	160	48	68	58	44	59	52	50 $\pm$ 10	

magnification is strikingly demonstrated by the data collected. DDT, DDD and DDE were not detected in any water samples and were present in the other compartments sampled in the order gar > topminnow > sediments > vegetation. Gar, in many cases, had concentrations of DDT, DDD and DDE approximately 100 times greater than concentrations found in vegetation. The residue levels of DDT and metabolites detected in the gar were intermediate in value to levels found in other Florida waters as reported for a similar tertiary consumer (largemouth bass) by the National Pesticide Monitoring Program for 1967 and 1968 (4).

Although there are a few exceptions, and more data are needed for confirmation, it appears that pesticide levels are somewhat higher at Stations 1 and 9 in conservation pool 3A.

Metals (Spectrographic Analysis)

Both water (total dissolved and suspended components) and sediments were analyzed spectrographically for the 19 metals shown in Tables 8 to 14.

Iron, boron, strontium, barium and manganese were the most universally detected metals in water. Iron was detected in all water samples collected, boron in 96 percent, strontium in 91 percent, barium in 77 percent, and manganese in 72 percent.

Zinc, aluminum, copper and lead were detected at frequencies between 12 and 15 percent.

Two metals, molybdenum and chromium, were not detected at any station during any month data were collected. Cobalt and vanadium were detected only on one occasion at Stations 7 and 11, respectively. Beryllium was only detected at Stations 7 and 8 in May.

Iron was the most frequently occurring metal and on nine occasions exceeded the upper level (0.3 mg/l) recommended for public water supplies by the NTAC¹ Report. Highest levels of iron were found in the Tamiami Canal at Stations 3 and 10 while the lowest levels were found at Stations 1 and 9 in the conservation pool and Station 11 in Gum Slough. Such a high level of iron may be the result of one or a combination of conditions, including: reduction of ferric iron to the more soluble ferrous form under the almost continuously anaerobic conditions occurring in May at Station 3; leaching from the disturbed earth's crust at the adjacent jetport construction site; concentration under the conditions of reduced water level in May.

Total dissolved and suspended aluminum was present at an unusually high level (3.8 mg/l) at Station 3 in May and exceeded maximum levels of dissolved aluminum reported for U.S. waters by Kopp and Kroner (3).

Station 3 is immediately adjacent to the jetport entrance road and construction activities were just drawing to a close when the May, 1970, samples were collected. It is quite likely that airborne particulate matter from the heavy vehicular traffic and construction activities adjacent to Station 3 contributed significant quantities of iron, aluminum and other metals to the suspended fraction of the samples from this station.

Three metals, cadmium, manganese and lead, were found at levels in excess of those recommended for public water supplies in the NTAC

¹Report of the National Technical Advisory Committee on Water Quality Criteria, FWPCA, 1968.

standards. Cadmium was found in a single sample at Station 3 in May at a concentration of 0.050 mg/l (NTAC criteria is 0.01 mg/l).

The recommended criteria for manganese is 0.05 mg/l, and this was exceeded in 9 of 46 samples. The maximum concentration detected was 0.335 mg/l at Station 10 in October.

Lead exceeded the NTAC recommendations for public water supplies (0.05 mg/l) during the low water levels occurring in May at all stations sampled adjacent to the Tamiami Trail and Levee L-28. Station 11 in Gum Slough, which is not canalized and is remote from the Tamiami Trail, was the only sampled station where lead was not detected. Most of the levels of lead detected were in excess of the maximum reported for U.S. waters by Kopp and Kroner (3). Much of this difference may be attributed to the suspended solids fraction which was included in the analyses reported here but not in the samples reported by Kopp and Kroner (3). A maximum of 0.440 mg/l was detected at Station 7 in May. The Tamiami Trail stations (3 and 10) are subject to contamination from the heavy auto traffic on the Trail, while the canals along Levee L-28 receive considerable traffic by air boats and outboard motors. In addition, a swamp buggy trail is immediately adjacent to the canal at Station 7.

Spectrographic analysis of sediment samples detected 13 metals (Table 15). Iron, aluminum, barrium and manganese were the metals most commonly detected and all but manganese were present in 100 percent of the samples. Manganese was missing from only one sample. Zinc, copper and chromium were detected in approximately 50 percent of the samples.

Aluminum and iron were present at high concentrations ranging from 4.28 parts per thousand (ppt) to 38.7 ppt and 1.29 to 14.4 ppt respectively. Considering their high toxicity to aquatic life, the high levels of copper, zinc and chromium in sediments is somewhat surprising. Zinc and copper at levels of 2.64 ppt and 2.43 ppt, respectively, were particularly high at Station 9 in the May, 1970, set of samples.

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Table 8

TOTAL DISSOLVED AND SUSPENDED TRACE METALS ($\mu\text{g/l}$)
 FOUND IN WATER SAMPLES FROM STATION 1
 MAY THROUGH NOVEMBER, 1970¹

Metal	May	June	July	Aug.	Sept.	Oct.	Nov.
Zinc	156	24	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND	ND
Boron	66	34	25	30	46	100	98
Iron	54	350	170	140	180	118	175
Molybdenum	ND	ND	ND	ND	ND	ND	ND
Manganese	26	34	ND	20	ND	64	11
Aluminum	ND	ND	ND	ND	ND	ND	ND
Beryllium	ND	ND	ND	ND	ND	ND	ND
Copper	126	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	ND
Cobalt	ND	ND	ND	ND	ND	ND	ND
Lead	136	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND	ND
Vanadium	ND	ND	ND	ND	ND	ND	ND
Barium	52	ND	2	ND	ND	6	7
Strontium	70	6	5	ND	10	45	59

ND - Not Detected

¹Lower limits of detection ($\mu\text{g/l}$): Zinc - 20, Cadmium - 20, Arsenic - 50, Boron - 10, Phosphorus - 100, Silver - 10, Nickel - 20, Cobalt - 20, Lead - 40, Chromium - 10, Vanadium - 40, Barium - 2, Strontium - 2

Table 9

TOTAL DISSOLVED AND SUSPENDED TRACE METALS ($\mu\text{g/l}$)
 FOUND IN WATER SAMPLES FROM STATION 3
 MAY THROUGH NOVEMBER, 1970

Metal	May	June	July	Aug.	Sept.	Oct.	Nov.
Zinc	160	22	ND	ND	ND	ND	ND
Cadmium	50	ND	ND	ND	ND	ND	ND
Arsenic	50	ND	ND	ND	ND	ND	ND
Boron	95	56	36	20	22	76	58
Iron	3200	190	84	70	46	36	40
Molybdenum	ND	ND	ND	ND	ND	ND	ND
Manganese	90	57	86	40	ND	150	ND
Aluminum	3800	ND	ND	ND	ND	ND	ND
Beryllium	ND	ND	ND	ND	ND	ND	ND
Copper	75	ND	10	ND	ND	ND	ND
Silver	ND	ND	2	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	ND
Cobalt	ND	ND	ND	ND	ND	ND	ND
Lead	150	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND	ND
Vanadium	ND	ND	ND	ND	ND	ND	ND
Barium	130	18	9	3	ND	9	4
Strontium	310	76	44	7	8	125	155

Table 10

TOTAL DISSOLVED AND SUSPENDED TRACE METALS (ug/l)
 FOUND IN WATER SAMPLES FROM STATION 7
 MAY THROUGH NOVEMBER, 1970

Metal	May	June	July	Aug.	Sept.	Oct.	Nov.
Zinc	50	ND	ND	ND	ND	---	ND
Cadmium	ND	ND	ND	ND	ND	---	ND
Arsenic	ND	ND	ND	ND	ND	---	ND
Boron	54	28	22	28	250	---	ND
Iron	136	395	230	280	480	---	490
Molybdenum	ND	ND	ND	ND	ND	---	ND
Manganese	33	175	61	34	13	---	22
Aluminum	290	ND	ND	ND	ND	---	130
Beryllium	0.2	ND	ND	ND	ND	---	ND
Copper	42	ND	ND	ND	ND	---	ND
Silver	ND	ND	ND	ND	ND	---	ND
Nickel	20	ND	ND	ND	ND	---	ND
Cobalt	30	ND	ND	ND	ND	---	ND
Lead	440	ND	ND	ND	ND	---	ND
Chromium	ND	ND	ND	ND	ND	---	ND
Vanadium	ND	ND	ND	ND	ND	---	ND
Barium	32	5	4	5	15	---	19
Strontium	288	12	9	13	96	---	320

Table 11

TOTAL DISSOLVED AND SUSPENDED TRACE METALS ($\mu\text{g/l}$)
 FOUND IN WATER SAMPLES FROM STATION 8
 MAY THROUGH NOVEMBER, 1970

Metal	May	June	July	Aug.	Sept.	Oct.	Nov.
Zinc	250	ND	ND	ND	ND	---	ND
Cadmium	ND	ND	ND	ND	ND	---	ND
Arsenic	ND	ND	ND	ND	ND	---	ND
Boron	100	27	28	18	38	---	62
Iron	350	290	220	200	270	---	520
Molybdenum	ND	ND	ND	ND	ND	---	ND
Manganese	63	24	ND	42	ND	---	44
Aluminum	ND	ND	ND	ND	ND	---	ND
Beryllium	0.5	ND	ND	ND	ND	---	ND
Copper	190	ND	ND	ND	ND	---	ND
Silver	ND	ND	ND	ND	ND	---	ND
Nickel	ND	ND	ND	ND	ND	---	ND
Cobalt	ND	ND	ND	ND	ND	---	ND
Lead	350	ND	ND	ND	ND	---	ND
Chromium	ND	ND	ND	ND	ND	---	ND
Vanadium	ND	ND	ND	ND	ND	---	ND
Barium	58	3	5	ND	9	---	24
Strontium	175	4	6	4	22	---	345

Table 12

TOTAL DISSOLVED AND SUSPENDED TRACE METALS ($\mu\text{g/l}$)
 FOUND IN WATER SAMPLES FROM STATION 9
 MAY THROUGH NOVEMBER, 1970

Metal	May	June	July	Aug.	Sept.	Oct.	Nov.
Zinc	ND	ND	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND	ND
Boron	50	38	20	18	38	86	150
Phosphorus							
Iron	116	380	110	110	175	140	110
Molybdenum	ND	ND	ND	ND	ND	ND	ND
Manganese	32	15	ND	46	ND	88	ND
Aluminum	370	ND	ND	ND	ND	ND	50
Beryllium	ND	ND	ND	ND	ND	ND	ND
Copper	24	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	ND
Cobalt	ND	ND	ND	ND	ND	ND	ND
Lead	136	ND	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND	ND
Vanadium	ND	ND	ND	ND	ND	ND	ND
Barium	60	6	ND	ND	5	9	14
Strontium	70	10	ND	ND	6	30	55

Table 13

TOTAL DISSOLVED AND SUSPENDED TRACE METALS ($\mu\text{g/l}$)
 FOUND IN WATER SAMPLES FROM STATION 10
 MAY THROUGH NOVEMBER, 1970

Metal	May	June	July	Aug.	Sept.	Oct.	Nov.
Zinc	44	620	ND	ND	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND	ND
Boron	68	54	22	28	11	58	66
Iron	430	200	42	110	22	42	40
Molybdenum	ND	ND	ND	ND	ND	ND	ND
Manganese	90	34	34	42	ND	335	ND
Aluminum	92	ND	ND	ND	ND	ND	ND
Beryllium	ND	ND	ND	ND	ND	ND	ND
Copper	60	ND	ND	ND	ND	ND	ND
Silver	ND	ND	ND	ND	ND	ND	ND
Nickel	ND	ND	ND	ND	ND	ND	ND
Cobalt	ND	ND	ND	ND	ND	ND	ND
Lead	60	125	ND	ND	ND	ND	ND
Chromium	ND	ND	ND	ND	ND	ND	ND
Vanadium	ND	ND	ND	ND	ND	ND	ND
Barium	38	12	3	ND	ND	6	9
Strontium	165	26	6	3	2	50	155

Table 14

TOTAL DISSOLVED AND SUSPENDED TRACE METALS ($\mu\text{g/l}$)
 FOUND IN WATER SAMPLES FROM STATION 11
 MAY THROUGH NOVEMBER, 1970

Metal	May	June	July	Aug.	Sept.	Oct.	Nov.
Zinc	30	20	ND	---	ND	ND	ND
Cadmium	ND	ND	ND	---	ND	ND	ND
Arsenic	ND	ND	ND	---	ND	ND	ND
Boron	44	44	46	---	ND	42	76
Iron	145	105	92	---	12	44	155
Molybdenum	ND	ND	ND	---	ND	ND	ND
Manganese	27	16	ND	---	ND	160	22
Aluminum	260	52	ND	---	ND	46	84
Beryllium	ND	ND	ND	---	ND	ND	ND
Copper	ND	ND	ND	---	ND	ND	ND
Silver	ND	ND	ND	---	ND	ND	ND
Nickel	ND	ND	ND	---	ND	ND	ND
Cobalt	ND	ND	ND	---	ND	ND	ND
Lead	ND	ND	ND	---	ND	ND	ND
Chromium	ND	ND	ND	---	ND	ND	ND
Vanadium	19	ND	ND	---	ND	ND	ND
Barium	45	ND	ND	---	5	8	9
Strontium	---	18	3	---	2	44	60

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Table 15

RESULTS OF SPECTROGRAPHIC ANALYSIS OF
SEDIMENT SAMPLES (mg/g)

MAY AND AUGUST, 1970

Metal	STATION											
	1		3		7		8		9		10	
	May	Aug	May	Aug	May	Aug	May	Aug	May	Aug	May	Aug
Zinc	.27	.10	.18	ND	.30	.07	ND	ND	2.64	ND	ND	ND
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Arsenic	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Boron	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phosphorus	ND	ND	ND	ND	ND	.28	ND	ND	ND	ND	ND	ND
Iron	4.3	2.55	3.34	3.16	13.1	4.36	9.16	3.16	14.4	9.14	1.92	5.08
Molybdenum	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Manganese	.15	.08	.26	.13	.37	.10	.36	.06	.63	.19	.30	ND
Aluminum	13.3	8.76	10.2	10.31	29.8	12.49	22.3	9.05	38.7	30.55	4.57	3.35
Beryllium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Copper	.46	ND	.76	ND	.76	ND	.47	ND	2.43	ND	.30	ND
Silver	ND	ND	ND	.09	ND	.03	ND	ND	ND	.10	ND	ND
Nickel	.19	ND	.55	ND	.54	ND	.65	ND	1.02	ND	.59	ND
Cobalt	ND	---	ND	---	ND	---	ND	---	ND	---	ND	---
Lead	ND	ND	ND	.39	ND	ND	ND	ND	ND	ND	ND	ND
Chromium	.23	ND	.46	ND	.51	ND	.22	ND	.81	ND	.59	ND
Vanadium	ND	ND	.32	ND	ND	ND	ND	ND	ND	ND	ND	ND
Barium	.07	.02	.14	.04	.16	.04	.22	.03	.30	.09	.15	.05
Strontium	.23	.20	.27	.21	.51	.54	.31	.16	.32	.31	ND	.24
	61%	55.6%	87%	89.2%	73%	64.6%	78%	39.6%	87%	84.2%	92%	92.7%
	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture	Mois- ture

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Organic Carbon

Total organic carbon (TOC) ranged from 5 ppm to 120 ppm (Table 5). Maximum TOC was found in the water at Stations 3 and 10, along the Tamiami Trail, during May and June and gradually decreased throughout the rest of the study period. The same monthly trend in TOC was apparent at all stations studied (Table 16).

Nitrogen and Phosphorus

Organic nitrogen fluctuated quite severely, ranging from a high of 8.05 ppm, to a low of 0.30 ppm (Table 5). Highest values were detected in May and February when water levels were at a minimum and minimum values were found during August (Table 16). Excluding the unusually high level measured at Station 3 in May, the mean levels of organic nitrogen were quite high at all stations, ranging from 0.67 ppm at Station 11 to 0.96 ppm at Station 8 (Table 5).

Mean monthly levels of ammonia nitrogen ranged from a low of 0.08 ppm in August to a high of 0.43 during September (Table 16). High concentrations generally coincided with minimum water levels, while minimum levels occurred during July, August, and September when water levels and rainfall were highest. Highest ammonia levels were found at Levee L-28 Station Number 8 and Tamiami Canal Stations 3 and 10 (Table 5).

Mean nitrate-nitrite nitrogen levels were similar at all stations, ranging from 0.02 ppm to 0.04 ppm (Table 5). Seasonally nitrate-nitrite nitrogen was lowest during periods of high biological activity and low water levels in May and June (.016 and .008 ppm respectively) and increased significantly during the cooler months to a peak of 0.064 ppm in February (Table 16).

Monthly mean total phosphate levels ranged from a high of 0.143 ppm in May to 0.005 ppm in July (Table 16). Both total and dissolved phosphate were below limits of detection in most July samples collected. In general, peak values coincided with reduced water levels and low values occurred when rainfall and water levels were high. Dissolved phosphate had a seasonal distribution in range of values identical to total phosphate. Highest dissolved and total phosphate levels were found in the canal at Station 3 along the Tamiami Trail.

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Table 16

MONTHLY MEAN VALUES (PPM) OF ORGANIC CARBON AND
THE DIFFERENT FORMS OF NITROGEN AND PHOSPHORUS

Month	TOC	NH ₃	NO ₃ -NO ₂	TKN	Total PO ₄	Diss. PO ₄	Total O-PO ₄	Diss. O-PO ₄
May	21	.39	.016	1.10	.143	.172	.085	.121
June	18	.21	.008	0.77	.023	.020	.016	.013
July	11	.16	.028	0.82	.005	.003	.003	.001
August	12	.08	.023	0.57	.037	.018	.039	.024
September	11	.43	.021	0.73	.050	.066	.036	.002
October	10	.15	.020	0.84	.017	.007	.009	.003
November	11	.38	.033	0.87	.067	.042	.050	.040
February	11	.33	.064	0.92	.043	.020	.015	.005

DIEL DATADissolved Oxygen

To obtain a measure of biological activity data on dissolved oxygen, temperature and pH were collected at Stations 3, 7, and 10 at approximately two-hour intervals over one 24-hour period each month that samples were collected.

For an environment having high levels of plankton, periphyton, and submersed vascular plants, dissolved oxygen exhibited a normal diel pattern of early-morning before-daylight lows and late-afternoon maximums (Figures C-1 through C-15).

Nighttime oxygen levels in the canal at Stations 3 and 10, along the Tamiami Trail, were severely limiting throughout the year, seldom attaining values above 3.0 mg/l, and during most months nighttime values were below 2 mg/l. During May and June, when water levels were low, the oxygen was completely exhausted from late evening to early morning at Stations 3 and 10. Oxygen demand for respiratory activity of dense growths of submersed aquatic plants and for bacterial decomposition of dead and dying vegetation and fish was so great that oxygen levels did not fully recover during the day, a maximum of only 1.0 mg/l being recorded during early afternoon at Station 3 in June. In spite of the dense growths of aquatic vegetation, supersaturation of dissolved oxygen was only recorded at Stations 3 and 10 during February.

Although dissolved oxygen levels were continuously low at Station 7, no instance of oxygen depletion was recorded (Figures C-6 through C-10). During most months nighttime lows were from 2 to 4 mg/l and daytime maximums seldom exceeded 5.0 mg/l. The maximum at Station 7 was recorded during

February; however, the low diel fluctuation (1.3 mg/l) in February is indicative of a low level of photosynthesis and respiratory activity at this station when samples were collected.

The Florida water quality standards state that for Class I through IV waters the dissolved oxygen "shall not be artificially depressed below the values of four (4.0) ppm (unless background information available to the regulatory agency indicates prior existence under unpolluted conditions of lower values)." For Class V waters (navigation, utility, and industrial use) the standards state that the dissolved oxygen shall be "sufficient to be aerobic." The term 'aerobic' is defined as "being not less than one (10) ppm with an average value of not less than two (2.0) ppm."

In the relatively undisturbed, shallow-water canal environments in the Everglades and the Big Cypress Swamp, the dissolved oxygen levels under natural conditions were frequently below the Florida standard for Class I-IV waters (Table 17). During May and June at Stations 3 and 10 the dissolved oxygen was frequently below the 1.0 mg/l standard for Class V (navigation and industrial) waters.

These dissolved oxygen data point up the borderline nature of the Everglades-Big Cypress environment for many forms of aquatic life and the inability of this environment to assimilate oxygen-demanding wastes introduced by the activities of man.

Temperature

Seasonally, daytime high water temperatures ranged from 16-18°C during February to 33-34°C in July (Figures C-1 through C-15). Maximum diel fluctuations of 5-6° occurred in February and May, coinciding with minimum water levels. Hourly rates of change of as high as 1.25°C per hour were noted in both May, 1970, and February, 1971. Higher temperatures

frequently occurred in the shallow marshes and in May a maximum temperature of 36°C was recorded in the shallow marsh at Station 8.

pH

As a result of the intensity of biological activity there were considerable diel and seasonal differences in pH with measured values ranging from pH 6.2 to pH 8.5, a difference of 2.3 pH units (Figures C-1 to C-15).

Although there were no discernible differences in pH at the different stations studied, there were appreciable differences between months, and these monthly differences appear to be correlated with water level and water temperature. The consistently lowest pH values occurred during May, 1970, when water levels were very low, temperatures high, and there was a maximum of respiratory activity. With the advent of the rainy season, the pH increased in June, reached a peak during July, and then declined somewhat to another low in September. During the cooler fall and winter months, the pH again increased with maximums occurring in October and February. Although water levels were at the lowest levels during February, the cool temperatures decreased biological activity to the extent that pH was on the alkaline side of neutral throughout the 24-hour period of study.

Table 17

SUMMARY OF DIEL DISSOLVED OXYGEN DATA¹
FROM STATIONS 3, 7, 10

EVERGLADES-JETPORT MONITORING, 1970-71

Month	Mean			% of Time D.O. below 1.0 mg/l			% of Time D.O. below 4.0 mg/l		
	Station			Station			Station		
	3	7	10	3	7	10	3	7	10
May	1.3	6.4	0.7	54	0	67	100	14	100
June	0.3	3.1	2.4	96	0	4	100	76	92
July	5.0	4.5	5.1	0	0	0	25	4	35
August	3.5	3.2	2.9	0	0	0	76	100	65
September	3.5	2.7	3.3	0	0	0	62	91	67
October	3.7	3.5	2.8	0	0	21	57	73	71
February	10.5	7.7	7.6	0	0	4	0	0	12

¹Computed from hourly values taken from diel curves shown in figures C-1 through C-15.

BIOLOGY

Phytoplankton

Concentrations of planktonic algae were quite variable with mean Sedgwick-Rafter counts ranging from approximately 400 to 5,000 cells per ml (Table 18).

The highest phytoplankton cell counts were recorded during periods of low water in May and February. There was a distinct seasonal difference in dominance (greater than 30% of total count) of the various forms of algae. Diatoms dominated the community during cooler months (December and February), while green flagellates and coccoid greens were dominant in May.

Station 9, which is the northernmost site on the conservation pool side of Levee L-28, had consistently higher phytoplankton counts than any other station sampled. Station 9 was also unusual in that it was the only station where bluegreens were recorded as a dominant form (Table 18).

Samples from the other station in the conservation pool (Station 1), in contrast to Station 9, had the lowest counts recorded.

Vascular Plants

Excepting the deep dredged canals at Stations 1, 7, and 9, all aquatic habitats sampled supported diverse communities of aquatic plants. The shallow canals along the Tamiami Trail at Stations 3 and 10 supported dense growths of submergent aquatics including bladderwort, Florida elodea, and coontail (Table 19). In May, 1970, when water levels were low, these submerged aquatics completely choked the canal from surface to bottom at Stations 3 and 10. The shoreline at these stations supported a mixed

Table 18

AVERAGE NUMBER OF ALGAL CELLS PER MILLILITER OF WATER
FROM STATIONS 1, 3, 7, 8, 9, AND 10

	Station 1			Station 3			Station 7			Station 8			Station 9			Station 10		
	May	Dec	Feb	May	Dec	Feb	May	Dec	Feb	May	Dec	Feb	May	Dec	Feb	May	Dec	Feb
Blue Green																		
Coccolid	0	0	22	199	55	11	37	0	44	287	22		1385	0	55	177	0	561
Filamentous	33	33	55	243	165	176	44	22	55	7	132		0	0	22	376	132	407
Green																		
Coccolid	66	22	385	324	110	154	1399	55	451	1024	297	N	1620	77	4103	575	209	561
Filamentous	0	0	0	0	0	0	0	11	55	0	0	0	7	11	22	0	22	11
Flagellates (Pigmented)																		
Green	236	22	55	552	176	77	361	66	66	508	462	C	1341	154	77	1260	297	1122
Other	132	0	0	37	0	11	59	22	220	1149	220	0	354	0	22	0	0	0
Diatoms																		
Centric	51	110	88	29	154	143	51	220	242	140	748	L	368	99	198	44	451	253
Pennate	44	121	495	243	231	154	162	110	605	398	726	E	162	66	330	685	66	715
												C						
Total Algae	562	308	1100	1627	891	726	2113	506	1738	3514	2607	T	5238	407	4829	3117	1353	3630
												I						
												O						
Inert Diatom Shells												N						
Centric	0	0	22	7	11	0	29	99	154	29	132		44	22	22	22	66	22
Pennate	7	55	187	22	110	66	37	77	187	22	473		29	110	154	66	132	77

Table 19

A LIST OF THE MOST COMMON AQUATIC PLANTS FOUND AT
STATIONS 1, 3, 7, 8, 9, AND 10

Plant	Months when Found																							
	Station 1			Station 3			Station 7			Station 8			Station 9			Station 10								
	M	A	D	M	A	D	M	A	D	M	A	D	M	A	D	M	A	D						
<i>Chara vulgaris</i> (musk grass)	X	X	X		X								X	X	X		X	X	X					
<i>Hydrilla verticillata</i> (Florida elodea)	X	X	X	X	X								X	X	X	X	X	X	X					
<i>Utricularia vulgaris</i> (bladderwort)	X	X	X	X	X								X	X	X	X	X	X	X					
<i>Salvinia rotundifolia</i> (floating moss)	X	X	X																					
<i>Limnobium spongia</i> (frogbit)	X	X																						
<i>Typha latifolia</i> (cattail)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Eleocharis</i> sp. (spike rush)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Sagittaria</i> sp. (arrowhead)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Utricularia gibba</i> (bladderwort)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Ceratophyllum demersum</i> (coontail)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Pontederia lanceolata</i> (pickerelweed)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Bacopa</i> sp. (water hyssop)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Eichhornia crassipes</i> (water hyacinth)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Polygonum pensylvanicum</i> (smartweed)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Nuphar advena</i> (spatterdock)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Cladium jamaicensis</i> (sawgrass)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Myriophyllum</i> (water milfoil)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Nymphaea odorata</i> (water lily)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Cabomba caroliniana</i> (fanwort)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Thalia geniculata</i> (fire flag)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Cephalanthus occidentalis</i> (button bush)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Sparganium</i> sp. (bur reed)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Gramineae</i> (grasses)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Panicum</i> sp.	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					
<i>Juncus</i> sp. (rush)	X	X	X		X		X	X	X		X	X	X	X	X		X	X	X					

M - May A - August D - December F - February

stand of emergent aquatic plants composed primarily of smartweed, pickerelweed, cattails, and sawgrass.

The canal edges at the Levee L-28 stations (1, 7, and 9) were six inches to 18 inches in water depth and supported dense stands of aquatic plants dominated by emergents with scattered growths of submersed plants. Emergents included cattails, pickerelweed, arrowhead, and bur reed. Submersed plants mixed with the emergents were predominantly bladderwort, Florida elodea, water milfoil, and water hyssop. Biomass of plants along the canal edges at Station 1, 7, and 9, as measured by dry weight and/or ash-free dry weight, varied considerably between samples and averaged approximately 386 g/m^2 as dry weight (Table C-1).

The shallow, marshy flat at Station 8 along Levee L-28 was characterized by sparse stands of spike rush interspersed with stands of sawgrass and scattered growths of stunt cypress. At Station 7 the shallow flat was dominated by sawgrass. The vegetation on the flats at Stations 1 and 9 was composed almost exclusively of sparse growths of spike rush.

Biomass of aquatic plants, as measured by dry weight, varied considerably in both the sawgrass and spike rush marshes, averaging 352 g/m^2 and 165 g/m^2 respectively (Table C-1).

The observed density of growth in three of the main aquatic habitats sampled was canal edges > sawgrass marshes > spike rush marshes, and these observations are verified by the biomass data presented in Table C-1 and discussed above.

Although not presented in this report, complete series of color photographs, including overhead aerials in May, 1970, were taken on every visit to the stations sampled and are available for documenting future changes in vegetative characteristics.

Periphyton

Some of the emergent aquatic plants, particularly in marshy areas, serve as a substrate for dense growths of epiphytic algae. The spike rush (Eleocharis) growing on the shallow flats at Stations 1, 7, 8, and 9 was covered with epiphytic growths over an inch in diameter. These dense growths of epiphytic algae are a major contributor of organic matter to the marsh habitats and the flocculent substrate material is composed almost exclusively of these epiphytes.

Qualitative samples of the epiphytic algae were collected in August, 1970, and in February, 1971. In February there was a diverse community of algae dominated by filamentous green algae and diatoms including: Mougeotia sp., Bulbochaete mirabilis, Oedogonium suecicum, Nitzschia sp., Navicula sp., Eunotia sp., and Achnanthes sp. In August the community was dominated by the filamentous bluegreen algal genera Oscillatoria and Scytonema.

Macroinvertebrates

Major emphasis was devoted to characterizing, quantitatively and qualitatively, the macroinvertebrate communities in the various habitats sampled. A total of 204 different kinds of macroinvertebrates was collected at all stations for the entire period of study (Table C-2).

The fauna of the canal bottoms at Stations 1, 3, 7, 9, and 10 was quite sparse, with a high of 94 individuals distributed among 15 genera and species collected in a single Ekman sample at Station 10 in December, 1970 (Table 20). The maximum numbers of individuals and species were collected from winter dredge hauls made in December, 1970, and February, 1971, and lows occurred in May and August. Station 10 had the most

abundant and diverse fauna, while Station 9 was the lowest. The canal bottom at Station 9 was almost devoid of organisms in May and August (Table 20). Qualitatively, the fauna of the canal bottoms was dominated by midges of the family Chironomidae, including: Chironomus attenuatus, Procladius culiciformis, Kiefferulus dux, and Dicrotendipes modestus (Table C-3). A few specimens of the mayfly Caenis diminuta and the crustacean Hyalella azteca were collected at Stations 3 and 10, associated with submersed vegetation that was included in the dredge hauls.

The canal edges at Stations 1, 7, and 9 supported an abundant and diverse fauna with a high of 351 individuals distributed among 35 genera and species collected using the stovepipe sampler at Station 9 in February (Table 21). The winter samples, collected in December and February, contained a more abundant and diverse fauna than did the May and August samples. There was no appreciable difference in the mean numbers of genera and species collected from the canal edges at Station 1, 7, and 9; however, Station 9 appeared to be supporting a larger standing crop (Table 21). Qualitatively, the fauna of the canal edges was dominated numerically by the crustaceans Hyalella azteca and Palaemonetes paludosus plus a very diverse association of midges distributed among 53 genera and species (Table C-4). There were also sparse but diverse associations of dragonflies, caddis flies, and aquatic beetles in the samples from the canal edges.

The spike rush marshes at Station 9 supported the largest standing crop (numerically) and most diverse macroinvertebrate community of any habitat sampled. A maximum of 521 organisms representing 40 different genera and species was collected in a single sample with the stovepipe at Station 9 in December, 1970 (Table 22). The abundance and diversity of organisms was considerably lower in the rush marshes at Station 1 and 8. As was

true in the other habitats sampled, the peak of abundance of the fauna in the rush marshes occurred in December and February with lows in May and August. The winter peaks were primarily a result of the abundance of midges. Qualitatively, the fauna in the rush marshes was dominated by the crustacean Hyaella azteca. The mayfly Caenis diminuta was common, together with a diverse association of midges, dragonflies, aquatic beetles, and snails (Table C-5).

The fauna of the sawgrass marshes at Stations 7 and 8 was dominated by the crustacean Hyaella azteca and a biting midge of the genus Dasyhelea (Table C-6). The very low water levels in May, 1970, and February, 1971, biased sampling to the extent that seasonal comparisons of the sawgrass marsh data are not possible. Both Station 7 and 8 supported a very diverse fauna in May and August (Table 23).

Table 20

DIVERSITY OF MACROINVERTEBRATE COMMUNITIES COLLECTED FROM CANALS
WITH EKMAN¹ AND PETERSEN² DREDGES AT STATIONS 1, 3, 7, 9, AND 10

	Number of Species				Number of Individuals				Diversity (H)				Equitability (E)			
	May	Aug	Dec	Feb	May	Aug	Dec	Feb	May	Aug	Dec	Feb	May	Aug	Dec	Feb
Station 1																
#1	7	2	4	7	9	3	8	25	2.7	0.9	1.9	2.2	1.3	1.0	1.2	0.9
#2	5	0	9	1	8	0	19	1	21	0	2.9	0	1.2	0	1.1	0
#3	5	0	8	1	5	0	11	1	2.3	0	2.8	0	1.4	0	1.2	0
#4		1	3			2	6			0	1.6			0	1.3	
Mean	5.7	0.7	6.0	3.0	7.3	1.2	11.0	9.0	2.4	0.2	2.3	0.7	1.4	0.2	1.2	0.7
Station 3																
#1	1	2	4	11	1	4	4	44	0	0.8	2.0	3.1	0	1.0	1.2	1.1
#2	9	1	3	16	36	1	4	81	2.1	0	1.5	3.0	0.7	0	1.3	0.7
#3	0	1	0	7	0	1	0	21	0	0	0	2.4	0	0	0	1.0
#4	5	1	2		10	1	3		1.8	0	0.9		0.8	0	1.0	
Mean	3.7	1.2	2.2	11.3	11.7	1.7	2.7	48.7	1.0	0.2	1.1	2.8	1.3	0.2	0.9	0.6
Station 7																
#1	1	7	6	5	3	29	25	11	0	2.1	1.7	2.2	0	0.9	0.7	1.2
#2	1	2	4	10	1	11	30	18	0	1.0	1.0	2.8	0	1.0	0.5	1.0
#3		4	6	4		36	54	28	0	0.8	1.2	1.1	0	0.5	0.5	0.7
#4		4	5			18	9			1.5	1.9			0.7	1.0	
Mean	1.0	4.2	5.2	6.3	2.0	23.5	29.5	19.0	0	1.3	1.4	2.0	1.2	0.8	0.7	1.0
Station 9																
#1	0	0	1	5	0	0	20	8		0	0	2.1		0	0	1.2
#2	0	1	4	6	0	1	18	26		0	0.9	2.3		0	0.5	1.2
#3	0	1	7	11	0	1	31	26		0	1.9	3.2		0	0.7	1.3
#4		1	3			1	7			0	1.4			0	1.0	
Mean	0.0	0.7	3.7	7.3	0.0	0.7	19.0	20.0		0.0	1.0	2.5	0.9	0.0	0.5	1.2
Station 10																
#1	4	1	10	6	4	1	10	9	2.0	0	3.3	2.5		0	1.5	1.3
#2	5	3	13	3	9	17	28	4	2.2	0.6	3.4	1.5	1.2	0.7	1.2	1.3
#3	3	5	15	3	9	34	53	3	1.0	0.9	3.4	1.6	0.7	0.4	1.0	1.3
#4	0	3	14		0	23	94		0	0.8	2.3		0	0.7	0.5	
Mean	3.0	3.0	13.0	4.0	5.5	18.7	46.2	5.3	1.3	0.6	3.1	1.9	1.7	0.8	1.0	1.3

¹Used at Stations 3 and 10

²Used at Stations 1, 7, and 9

Table 21

DIVERSITY OF MACROINVERTEBRATE COMMUNITIES COLLECTED FROM CANAL EDGE
WITH STOVEPIPE AT STATIONS 1, 7, AND 9

	Number of Species						Number of Individuals						Diversity (H)						Equitability (E)					
	May	Aug	Dec	Feb	May	Aug	Dec	Feb	May	Aug	Dec	Feb	May	Aug	Dec	Feb	May	Aug	Dec	Feb	May	Aug	Dec	Feb
Station 1																								
#1	12	14	17	26	33	37	99	269					2.7	3.2	3.1	1.5	0.7	0.9	0.7	0.1	0.7	0.9	0.7	0.1
#2	25	21	39	23	89	87	175	205					3.4	3.7	4.2	1.8	0.6	0.9	0.7	0.2	0.6	0.9	0.7	0.2
#3	6	5	23	15	17	16	119	96					2.3	1.9	3.8	2.3	1.2	1.0	0.9	0.5	1.2	1.0	0.9	0.5
#4	7	22	32	10	15	46	180	82					2.3	3.8	3.9	1.2	1.0	0.9	0.7	0.3	1.0	0.9	0.7	0.3
#5	4				5								1.9				1.2				1.2			
#6	4				5								1.9				1.2				1.2			
Mean	9.7	15.5	27.7	18.5	18	27.3	46.5	163.0	95				2.4	3.1	3.7	1.7	1.0	0.9	0.7	.02	1.0	0.9	0.7	.02
Station 7 ¹																								
#1	15	4	20	16	74	6	146	34					2.8	1.8	2.0	3.7	0.7	1.2	0.2	1.2	0.7	1.2	0.2	1.2
#2	17	20	24	20	62	32	57	69					3.2	4.0	3.9	3.6	0.8	1.1	0.9	0.9	0.8	1.1	0.9	0.9
#3	6	6	25	11	32	20	133	41					1.9	2.0	3.5	2.9	0.8	0.8	0.7	1.0	0.8	0.8	0.7	1.0
#4	26	8	19	11	197	14	130	36					3.4	2.8	2.4	2.8	0.6	1.1	0.4	0.9	0.6	1.1	0.4	0.9
#5	20				46								3.8				1.0				1.0			
#6	13				39								3.1				0.9				0.9			
Mean	16.2	9.5	22.0	14.5	15	75.0	18.0	45.0	64				3.0	2.6	2.9	3.2	0.8	1.0	0.5	1.0	0.8	1.0	0.5	1.0
Station 7 ²																								
#1	11				32								2.9				1.9				1.9			
#2	22				61								3.5				0.8				0.8			
#3	11				65								2.3				0.6				0.6			
#4	6				10								2.4				1.2				1.2			
#5	10				13								3.2				1.3				1.3			
#6	28				112								3.8				0.7				0.7			
Mean	14.7				48.8								3.0				0.9				0.9			
Station 9																								
#1	0	3	21	11	0	5	85	41									0	1.0	0.8	0.8	0	1.0	0.8	0.8
#2	12	10	21	17	51	13	130	253					2.0	3.1	4.7	1.7	0.4	1.2	1.8	0.2	0.4	1.2	1.8	0.2
#3	12	6	17	24	65	13	151	323					2.0	2.1	4.3	2.7	5.0	1.0	1.6	0.4	5.0	1.0	1.6	0.4
#4	17	31	26	35	32	78	125	352					3.6	4.4	3.7	2.6	1.0	1.0	0.7	0.3	1.0	1.0	0.7	0.3
#5	16				39								3.0				0.7				0.7			
#6	15				66								2.9				0.7				0.7			
Mean	12.0	12.5	21.2	21.7	17	42.2	27.2	7252.2	109				2.2	2.7	4.0	2.4	1.3	1.0	1.2	0.4	1.3	1.0	1.2	0.4

¹West of canal ²East of canal

Table 22

DIVERSITY OF MACROINVERTEBRATE COMMUNITIES COLLECTED FROM RUSH MARSH
WITH STOVEPIPE AT STATIONS 1, 8, AND 9

	Number of Species					Number of Individuals					Diversity (H)					Equitability (E)				
	May	Aug	Dec	Feb		May	Aug	Dec	Feb		May	Aug	Dec	Feb		May	Aug	Dec	Feb	
Station 1																				
#1	8	8	15	11		63	16	50	103		1.4	2.5	2.7	1.8		0.4	1.0	0.6	0.4	
#2	26	5	2	16		155	10	8	88		3.3	2.1	0.5	3.2		0.5	1.2	1.0	0.9	
#3	9	9	10	10		48	17	24	35		2.3	2.7	2.9	2.7		0.8	1.1	1.1	0.9	
#4		4	6	17			7	25	171			2.2	1.9	2.2			1.2	0.8	0.3	
Mean	14.3	6.5	8.2	13.5	11	79.7	12.5	26.7	99.2	54	2.3	2.4	2.0	2.5	2.3	0.6	1.1	0.9	0.6	0.8
Station 8																				
#1		15	13				29	78				2.6	2.8				0.6	0.7		
#2		17	7				143	41				2.4	2.1				0.4	0.9		
#3		15	9				57	17				3.0	2.8				0.7	1.1		
#4		18	12				158	25				2.1	3.3				0.3	1.2		
Mean		16.2	10.2		13		114.2	40.2		77		2.5	2.7		2.6		0.5	1.0		0.7
Station 9																				
#1	14	8	26	20		43	14	116	62		3.4	2.8	4.0	3.6		1.1	1.1	0.9	0.9	
#2	13	9	37	24		28	22	249	197		3.2	2.8	4.2	3.1		1.0	1.1	0.8	0.5	
#3	17	20	29	19		30	104	462	77		3.8	2.9	2.2	3.3		1.2	0.5	0.2	0.7	
#4		28	42	28			102	621	115			4.1	4.3	3.7			0.9	0.7	0.7	
Mean	14.7	16.2	33.5	22.7	22	33.7	60.5	362.0	112.7	142	3.5	3.1	3.7	3.4	3.4	1.1	0.9	0.6	0.7	0.8

Table 23

DIVERSITY OF MACROINVERTEBRATE COMMUNITIES COLLECTED FROM SAWGRASS MARSH¹
AND CYPRESS SLOUGH² WITH STOVEPIPE AT STATIONS 7, 8, AND 10

	Number of Species					Number of Individuals					Diversity (H)					Equitability (E)				
	May	Aug	Dec	Feb		May	Aug	Dec	Feb		May	Aug	Dec	Feb		May	Aug	Dec	Feb	
Station 7																				
#1	24	21	28	0		84	87	104	0		3.4	3.3	4.2			0.7	0.7	1.0		
#2	27	27	21	1		295	106	46	1		3.4	3.7	4.1			0.5	0.7	1.2		
#3	0	17	22	0		0	79	54	0		0	2.9	4.0			0	0.6	1.0		
#4		25	33				137	127				3.2	4.6				0.6	1.1		
Mean	17.0	22.5	26.0	0.3	16	126.3	102.2	82.7	0.3	78	2.3	3.3	4.2		3.3	0.4	0.6	1.1		0.7
Station 8																				
#1		21	9				150	19				2.4	2.9				0.3	1.1		
#2		18	11		D		152	19		D		2.2	3.1				0.3	1.1		
#3		19	11		R		286	29		R		2.3	3.1				0.4	1.1		
#4		26	4		Y		218	11		Y		2.6	1.7				0.3	1.0		
Mean		21.0	8.7		15		201.5	19.5		110		2.4	2.7		2.6		0.3	1.1		0.7
Station 10																				
#1		20	14				53	277				4.0	1.0				1.1	0.1		
#2	D		7		D	D		445		D			0.8					0.3		
#3	R		13		R	R	49	127		R		2.0	1.7				0.4	0.3		
#4	Y		14		Y	Y	38	149		Y		3.5	2.2				1.0	0.4		
Mean		12.2	12.0		12		35.0	249.5		142		2.4	1.4		1.9		0.6	0.3		0.4

¹Stations 7 and 8

²Station 10

Table 24

NUMBER OF SPECIES OF MACROINVERTEBRATES FOUND IN QUALITATIVE COLLECTIONS
AT STATIONS 1, 3, 7, 8, 9, AND 10

	Number of Species				
	May	Aug	Dec	Feb	Mean
Station 1	13	15	9	30	16
Station 3	34	42	11	25	28
Station 7	11	15	10	26	16
Station 8		24	6		15
Station 9	28	22	24	32	26
Station 10	22	18	10	35	27

REFERENCES

1. Reid, George K.: Ecology of Inland Waters, Reinhold Publishing Company, 1961.
2. Hutchinson, G. Evelyn: A Treatise on Limnology, Vol I. Geography, Physics and Chemistry. John Wiley and Sons, New York, 1957.
3. Kopp, John F. and Kroner, Robert C.: Trace Metals in Waters of the United States. USDI, FWQA, Division of Pollution Surveillance, Cincinnati, Ohio. No date.
4. Henderson, Croswell, Wendell T. Johnson and Anthony Ingles: Organochlorine Insecticide Residues in Fish (National Pesticides Monitoring Program), Pesticides Monitoring Journal, Vol. 3, No. 3: 145-171.

PARTICIPANTS

Numerous individuals contributed to the planning, field operations, and laboratory work involved in the Big Cypress Swamp Jetport Monitoring Program.

Mr. L. B. Tebo, Jr., Chief, Biological Services Activity, Southeast Water Laboratory, coordinated activities and prepared the present report. Mr. Tom Bennett, Analytical Chemist, Southeast Water Laboratory, was responsible for the field and laboratory chemical analysis of samples. The following individuals, all employees of the Southeast Water Laboratory, contributed significantly to both field and laboratory activities involved.

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APPENDIX A
FIELD SAMPLING METHODS

Sampling Frequency

Samples for routine water quality analysis were collected from all stations daily for a period of three days near the middle of each month as detailed below. One diurnal study of D.O., temperature, pH and CO₂ was also conducted monthly at the special stations indicated.

Once each quarter (May, August, November and February) samples of the sediments and the biota were collected for analyses of pesticides. Sediments were also analyzed for trace metals, total phosphorus, total organic nitrogen, and organic carbon.

Studies of the aquatic biota (vascular plants, plankton and macro-invertebrate) were conducted once each quarter.

I. PHYSICAL AND CHEMICAL DATA

A. KEY STATIONS - 1, 3, 7, 8, 9, 10, and 11

Water Samples

1. Monthly single sample for trace metals determination.

Parameter numbers 26-44 (Table 1)

2. Quarterly sample for pesticides, organics scan and phenol.

Parameters 25, 45 and 46

Sediment Samples

Quarterly samples for metals and pesticides. Parameter numbers 26-45.

Biota (submersed plant, short-nose gar and topminnow)

Quarterly sample for pesticides.

B. SPECIAL STATIONS - 10, 3 and 7

Dissolved oxygen, temperature, pH, alkalinity and TDS were determined at two hour intervals over a 24-hour period.

The USGS conducted diurnal studies at Stations 8 and 9.

C. ALL STATIONS - 1, 3, 5, 6, 7, 8, 9, 10, and 11.

All routine water quality parameters were determined daily for a period of three days during the middle of each month. Included parameters 1-11, 13-24, and 47 listed in Table 1.

II. BIOLOGICAL DATA

Samples of the vascular plants, plankton and aquatic macro-invertebrates were collected each quarter at Stations 1, 3, 7, 8, 9, and 10.

Table 1PARAMETER LIST

1. Dissolved oxygen	13. Iron	26. Aluminum
2. Temperature	14. Calcium	27. Arsenic
3. pH	15. Magnesium	28. Barium
4. Conductivity	16. Sodium	29. Cadmium
5. Chlorides	17. Potassium	30. Chromium
6. Turbidity	18. Silica	31. Copper
7. Color		32. Lead
8. Alkalinity	19. Ammonia nitrogen	33. Zinc
9. Hardness	20. Nitrate-nitrite nitrogen	34. Nickel
10. Sulfate	21. Total nitrogen (Kjeldahl)	35. Vanadium
	22. Phosphorus (Total & Dissolved)	36. Lithium
11. TOC	23. Total orthophosphate	37. Mercury
12. COD	24. Dissolved orthophosphate	38. Manganese
		39. Boron
	25. Phenol	40. Molybdenum
		41. Beryllium
		42. Silver
		43. Cobalt
		44. Strontium
		45. Pesticides
		46. Organic Scan (G.C. & I.R.)
		47. TDS

FREQUENCY OF SAMPLING

W - Weekly
 Q - Quarterly
 D - Daily (for each study period)
 DI - Diurnal study (once per month)

SAMPLING METHODS

I. PHYSICAL AND CHEMICAL DATA

A. WATER SAMPLES

All samples were collected just below the surface (approximately 6" depth) with a stainless steel D.O. dunker. Prior to each field sampling trip the sampler(s) to be used were scrubbed down with soap and water, thoroughly water rinsed followed by a rinse in dilute HNO_3 and finally acetone. Filtration apparatus was cleaned by rinsing with dilute HNO_3 followed by distilled water. Sampling gear was rinsed with distilled water between samples without allowing it to dry.

1. Trace Metals

Collected in a two(2) liter polyethylene bottle (lid of same material) and preserved with 5 ml of concentrated nitric acid (HNO_3) per liter of sample.

2. Pesticides and Organics Scan

Collected in a new, hexane rinsed one(1) liter wide-mouth glass jar with a foil lined lid. Sample refrigerated near 4°C .

3. Nutrients and TOCa. Total NO_3 - NO_2 , NH_3 , TKN, Orthophosphate and total phosphate

Collected in a 500 ml polyethylene bottle and preserved with 5 ml of 10 per cent sulfuric acid (H_2SO_4) per 500 ml of sample.

b. Dissolved orthophosphate, total phosphorus, and TOC

Filtrated at collection through a 0.45 μ filter. Placed in a 100 ml polyethylene bottle and preserved with one(1) ml of 10 per cent sulfuric acid (H_2SO_4) per 100 ml of sample.

4. Phenol (Parameter #25)

Collected in clean one(1) liter glass jar and added 10 ml of 10 per cent CuSO_4 and 10 ml of 10 per cent H_3PO_4 .

5. Parameters 4-7 and 9-18

Collected unpreserved sample in 500 ml polyethylene bottle.

6. D.O. temperature, pH and alkalinity

Determinations on freshly collected sample immediately after collection.

B. SEDIMENT SAMPLES

Collected with Ekman or Petersen dredges which were cleaned up before each trip in the manner prescribed for the D.O. dunkers (see previous section on water samples).

1. Metals

Collected in clean one quart mason jar with plastic side of lid down. Refrigerated.

2. Pesticides

Same as for metals except turn tinned side of lid down. Refrigerated.

II. BIOLOGICAL DATA

A. SAMPLE SITE SELECTION

1. Canal

Dredged, Deep Water Section

A permanent quadrat 30 meters long and the width of the canal was selected, divided into 5 meter squares on arithmetic graph paper and one square was randomly selected as the sample site.

Canal Edge

At some stations, particularly along Levee L-28, there was a typical shallow water habitat along both edges of the canal characterized by an abundant and diverse association of emergent, submerged and floating-leaved aquatics in water having a depth of 0-24".

Where such habitat was available the 30 meter canal quadrat was sufficiently wide (30-35 meters) to encompass both canal edges.

For the May, 1970, sampling a five meter square site was randomly selected for sampling along each canal edge. Subsequent to May, 1970, a site was randomly selected on one side of the canal only.

2. Marshes, Sloughs and Prairies

Habitats of these types that were in the vicinity (500-1000 meters) of the selected stations were sampled as follows:

- a. From photos or field observation a diagrammatic sketch of the habitat was made on arithmetic graph paper.
- b. The squares included in the sketch were numbered and the sample site was a square selected at random from this sketch.

3. SAMPLING METHODS

1. Macroinvertebrates

All samples were sieved through a 30 mesh screen and preserved in 70 percent ethanol.

- a. Hoar Dredge - 4 1/4 sq. foot samples per sample site.
- b. Potamon Dredge - 4 samples per sample site.

c. Stove pipe - 12" diameter by 30" length of aluminum pipe. Four samples per site. Separate plants for determination of plant biomass.

d. Qualitative - Hand picking and screening of vegetation, debris, etc.

Qualitative sampling was conducted at all stations. The Ekman or Petersen, depending on substrate was used in canals. The stove pipe was used in all habitats having a depth less than 24".

2. Plankton

Three one(1) liter subsurface grab samples were collected at each station for Sedgwick-Rafter analysis.

3. Vascular Plants

a. Areal coverage - Six 1/2 square meter overhead photos with wide angle lens.

b. Biomass - From stovepipe samples mentioned above, determined dry weight and ashed weight in lab.

4. Other Measurements

a. Substrate Characterization

One sample from each site was collected and returned to the laboratory for physical characterization. Where there was distinct layering of deposits it was discussed in field notes.

b. Water Transparency

Readings with submersible photometer near surface, at mid-depth and just above bottom in the deep water portion of each panel sample site.

c. Depth

Recorded with each sample. Also did x-sect. (middle and quarter points) on canals and canal edges.

d. Temperature

Recorded at each sample site.

C. SAMPLE HABITATS AT EACH STATION

1. Station #1

This station was on the northeast side of and adjacent to levee L-28 at second turnaround, 0.8 miles west of gate. Four sample habitats - (1) dredged portion of canal, (2 & 3) both canal edges, and (4) shallow marshy area paralleling northeast edge of canal.

2. Station #3

This station was the Tamiami Canal along Hwy. 41. The only habitat at this station was the canal proper. At the time of the May, 1970, sampling the surrounding area was dry land.

3. Station #7

This station was on west side of levee L-28 and had four sample habitats - (1) the dredged portion of canal, (2 & 3) both canal edges, and (4) a sawgrass marsh.

4. Station #8

This station was on west side of levee L-28 and had two habitats - (1) marshy area dominated by sparse growths of spike rush and (2) sawgrass marsh.

5. Station #9

Station on east side of levee L-28 with four sample habitats (1) the dredged portion of canal, (2 & 3) both canal edges, and

(4) a shallow marsh dominated by spike rush. Spike rush heavily laden with epiphytic growth in May, 1970.

6. Station #10

This station was in vicinity of bridge #105 at headwaters of Gum Slough. One habitat during dry season and two additional during wet weather. Tamiami Canal adjacent to bridge was sampled at all times. The slough running northeast from the bridge and a small marsh approximately 150 yards northwest of the bridge were sampled in wet weather.

Appendix B
CHEMICAL DATA

STREET RETRIEVAL DATE 7/1/10/20

REPORT STUDY

118001 JP-01
25 44 15.0 080 48 45.0
CANAL CONTROL STRUCTURE 12A
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

77777777
0000 FEET DEPTH

DESCRIPTION

CANAL AT WATER CONTROL STRUCTURE 12A. WATER SAMPLES COLLECTED ON NORTH
SIDE OF HIGHWAY 41 JUST UPSTREAM OF WEST END OF WATER CONTROL STRUCTURE.
STATION FOR BIOTA ON NORTHEAST SIDE OF LEVEE L-28 AT 2ND TURNAROUND WEST
OF LEVEE GATE (0.8 MILE WEST OF GATE).

STATION ESTABLISHED DATE 7/10/20

STATION STUDY

118001 JP-01
25 44 15.0 080 48 45.0
CANAL CONTROL STRUCTURE 12A
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

7777777
0000 FEET DEPTH

DATE Region	TIME UT	00200 DO	00010 WATER TEMP	00400 PH	00095 CONDUCTVY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKSN JU	00080 COLOR PT-CO UNITS	00410 T ALK CAC03 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C C MG/L
7/13/12	12 00	6.3	28.0	7.1	201	8	4.0	22	127	5K	16
7/13/13	18 35	7.5	26.0	6.8	199	6	1.3	22	129	5K	17
7/13/14	00 25	5.8	26.5	7.3	213	7	1.3	20	127	5K	19
7/13/16	11 03	2.2	28.5	7.2	260	7	3.0	17	126	5K	14
7/13/17	07 08	2.3	28.0	7.5	261	8	1.3	18	126	5K	13
7/13/18	11 00	2.6	29.0	7.8	260	8	1.3	16	126	5K	16
7/13/19	09 05	3.4	30.0	8.3		6	1.0	17	99	5	12
7/13/19	08 50	3.8	30.0	7.8		6	1.3	18	108	5K	10
7/13/19	09 05	2.8	30.0	7.9	198	6	0.7	16	106	5	9
7/13/20	12 00	3.8	30.0	6.3	198	10	16.0	13	88	8	12
7/13/20	11 30	4.8	30.5	7.7	205	10	2.0	14	91	7	11
7/13/21	05 08	3.9	29.5	8.0	207	10	4.0	13	88	9	12
7/13/22	09 00	4.8	26.0	7.4	210	15	1.0	12	103	4	9
7/13/23	12 05	6.7	28.6	7.0	200	9	2.0	13		17	12
7/13/24	07 20	1.3	26.0	7.7	236	22	1.0	7	90	5	5
7/13/13	12 12	6.8	28.5	8.1	197	9	2.0	13	92	8	9
7/13/14	08 20	5.6	27.0	8.4	220	9	2.0	11	98	9	9
7/13/15	06 50	5.4	27.5	7.2	208	8	1.0K	13	104	8	11
7/13/17	12 05	7.7	18.0	8.0	241	10	1.0K	12	123	7	10
7/13/18	09 50	6.6	16.0	7.2	322	24	1.0K	13	135	7	11
7/13/19	07 05	6.6	16.0	7.1	322	25	1.0K	11	83	8	11
7/13/19	09 35	2.1	19.5	7.6	318	17	7.0	21	35	17	11
7/13/19	09 05	3.0	15.0	7.4	336	18	7.0	19	134	5K	16
7/13/21	07 50	3.1	13.0	7.3	320	17	23.0	18		5K	15
7/13/21	10 18	8.0	25.0	7.1	568		5.0K	45		24	
7/13/21	10 00	1.6	30.0	7.6	575		5.0K	40		22	
7/13/12	00 30	8.0	27.0	6.4	540		5.0K	30		5K	

000000 0000000000 DATE 7/10/20

REPORT STUDY

118001 JP-01
25 44 15.0 080 48 45.0
CANAL CONTROL STRUCTURE 12A
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE TIME FROM TO	TIME OF DAY	DEPTH FEET	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CAC03 MG/L	01090 ZINC ZN-DISS UG/L	01025 CADMIUM CD-DISS UG/L	01000 ARSENIC AS-DISS UG/L	01020 BORON B-DISS UG/L
7/10/20	12 40	1	0.020	0.080	0.075	121	156	20K	50K	66
7/10/20	12 45	1	0.020	0.010	0.010	126				
7/10/20	12 50	1	0.010	0.349	0.355	122				
7/10/20	12 55	1	0.006	0.010	0.006	110				
7/10/20	13 00	1	0.010	0.104	0.005K	116				
7/10/20	13 05	1	0.011	0.010	0.005K	104	24	20K	50K	34
7/10/20	13 10	1	0.005K	0.005K	0.005K	108				
7/10/20	13 15	1	0.005K	0.005K	0.005K	99				
7/10/20	13 20	1	0.005K	0.005K	0.005K	103	20K	20K	50K	25
7/10/20	13 25	1	0.005K	0.008	0.005K	79				
7/10/20	13 30	1	0.005K	0.005K	0.005K	73				
7/10/20	13 35	1	0.025	0.050	0.026	74	20K	20K	50K	30
7/10/20	13 40	1	0.018	0.005K	0.005K	84				
7/10/20	13 45	1	0.005K	0.009	0.005K	85	20K	20K	50K	46
7/10/20	13 50	1	0.005K	0.042	0.005K	82				
7/10/20	13 55	1	0.006	0.005K	0.005K	86				
7/10/20	14 00	1	0.005	0.005K	0.005K	91				
7/10/20	14 05	1	0.005	0.005K	0.005K	86				
7/10/20	14 10	1	0.008	0.005	0.005	90	20K	20K	50K	100
7/10/20	14 15	1	0.006	0.005K	0.005K	121	20K	20K	50K	98
7/10/20	14 20	2	0.005K	0.006	0.005K	122				
7/10/20	14 25	2	0.014	0.012	0.005K	84				
7/10/20	14 30	2	0.032	0.020	0.005K	42				
7/10/20	14 35	2	0.021	0.013	0.005K	128				
7/10/20	14 40	2	0.025							

START ANALYSIS DATE 7/10/20

REPORT STUDY

118001 JP-01
25 44 15.0 080 48 45.0
CANAL CONTROL STRUCTURE 12A
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

7777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01070 PHOS-P P-SPEC UG/L	01065 IRON TOTAL UG/L	01060 MOLY MO-DISS UG/L	01055 MANGANESE MN UG/L	01105 ALUMINUM AL-TOT UG/L	01010 BERYLLIUM BE-DISS UG/L	01040 COPPER CU-DISS UG/L	01075 SILVER AG-DISS UG/L	01065 NICKEL NI-DISS UG/L	01035 COBALT CO-DISS UG/L
7/10/20	12	45	100K	10	40K	10.0K	40K	0.20K	126	2.0K	20K	20K
7/10/20	13	35		20		10.0K						
7/10/20	16	25		70		80.0						
7/10/20	11	12		470		10.0K						
7/10/20	17	45	100K	20	40K	570.0	40K	0.20K	10K	2.0K	20K	20K
7/10/20	11	01		180		40.0						
7/10/20	15	45	100K	176	40K	20.0	40K	0.20K	10K	2.0K	20K	20K
7/10/20	12	01		240		100.0						
7/10/20	11	35	100K	230	40K	70.0	40K	0.20K	10K	2.0K	20K	20K
7/10/20	17	05	100K	195		200.0						
7/10/20	12	45	100K	110	40K	250.0	40K	0.20K	10K	2.0K	20K	20K
7/10/20	17	20		20		50.0						
7/10/20	12	12		50		30.0						
7/10/20	16	00	100K	40	40K	150.0	40K	0.20K	10K	10.0K	20K	20K
7/10/20	15	05	100K	10		20.0	40K	0.20K	10K	10.0K	20K	20K
7/10/20	12	45		10		50.0						
7/10/20	18	00		250		10.0K						
7/10/20	17	45		250		30.0						
7/10/20	13	25		250		50.0						
7/10/20	18	00		120		40.0						

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110001 JP-01
25 44 15.0 080 48 45.0
CANAL CONTROL STRUCTURE 12A
12 FLORIDA
SOUTHEAST
LOWER FLA
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0000 FEET DEPTH

DATE TIME	TIME OF DAY	DEPTH FEET	01045 TOTAL US/L	01055 MANGANESE US/L	00916 CALCIUM CA-TOT MG/L	00927 MAGNESIUM MG-TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA-TOT MG/L	00937 PTSSUM K-TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 N02LN03 N MG/L
01/01/00	12	40	10	10K	34	2.6		11.0	0.8	250	0.04	0.005K
01/01/00	13	35	20	10K	40	2.4		9.8	0.5	157	0.05	0.005K
01/01/00	14	30	70	10K	30	2.5		8.4	0.8	172	0.49	0.005K
01/01/00	11	03	470	80	40	2.2		8.5	1.1	178	0.14	0.005K
01/01/00	07	40	20	10K	31	2.4		8.6	0.8	193	0.09	0.005K
01/01/00	11	00	180	570	30	1.9		7.5	2.4	186	0.19	0.005K
01/01/00	09	45	140	40	40	2.1		7.6	1.0	98	0.05	0.005K
01/01/00	04	00	176	20	42	2.1		7.9	1.0	146	0.16	0.005K
01/01/00	09	45	240	100	33	1.8		5.9	0.7	131	0.03	0.005
01/01/00	12	00	230	70	29	1.7		5.9	0.8	138	0.08	0.020
01/01/00	11	30	170	200	32	1.9		6.1	1.8	124	0.06	0.020
01/01/00	09	00	110	20	29	1.8		6.0		134	0.20	0.010
01/01/00	08	40	110	250	33	2.0		6.0	1.8	113	0.39	0.040
01/01/00	12	40	50	50	36	2.1		6.5		139	0.83	0.010
01/01/00	07	20	50	30	36	1.7		5.9	0.9	131	0.15	0.005
01/01/00	12	10	40	150	43	1.9	0.2	6.0	3.1	135	0.08	0.005K
01/01/00	05	00	10	20	41	1.9	0.6	6.0	0.8	12	0.08	0.005K
01/01/00	12	40	10	50	40	2.1	0.4	6.6	0.8	135	0.11	0.010K
01/01/00	12	00	250	10K	48	2.1		7.0		172	0.16	0.010K
01/01/00	07	45	250	30	48	2.3		7.2	28.0	199	0.26	0.010K
01/01/00	09	30	250	50	50	3.0	0.6	11.0	1.8	224	0.88	0.040
01/01/00	08	40	120	40	50	3.0	0.5	11.0	1.5	256	0.88	0.040
01/01/00	07	00					0.4			202	0.96	0.030
01/01/00	10	10					0.4			364		
01/01/00	10	10					1.2			380		
01/01/00	05	30					1.6			376		

STONET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118001 JP-01
25 44 15.0 080 48 45.0
CANAL CONTROL STRUCTURE 12A
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0
77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01049 LEAD PB,DISS UG/L	01030 CHROMIUM CR,DISS UG/L	01085 VANADIUM V,DISS UG/L	01005 BARIUM BA,DISS UG/L	01080 STRONTIUM SR,DISS UG/L	71900 MERCURY HG,TOTAL UG/L
70/05/12	12	40	136	10K	40K	52	70	1.1
70/06/18	11	00	40K	10K	40K	2K	6	0.8
70/07/16	09	45	40K	10K	40K	2	5	0.2K
70/08/27	06	00	40K	10K	40K	2K	2K	1.6
70/09/23	12	46	40K	10K	40K	2K	10	0.2K
70/10/15	06	50	40K	10K	40K	6	45	0.2K
70/11/17	12	45	40K	10K	40K	7	59	1.8
71/02/09	09	35						0.9
71/05/10	18	10						1.3

55

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118003 JP-03
25 49 55.0 080 54 45.0
TAMIAHI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0 77777777
0000 FEET DEPTH

DESCRIPTION

TAMIAHI CANAL AT BRIDGE #112. COAST AND GEODETIC SURVEY MARKER #K248 AT
NW CORNER OF BRIDGE. THIS IS FIRST BRIDGE ON TAMIAHI TRAIL EAST OF
JETPORT ENTRANCE (APPROX. 1/4 MILE). WATER SAMPLES FROM CANAL AT NW
CORNER OF BRIDGE.

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118003 JP-03
25 49 55.0 080 54 45.0
TAMIA MI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CONDUCTIVITY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKSN JU	00080 COLOR PT-CO UNITS	00410 T ALK CACO3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C C MG/L
70/05/12	17 30		4.7	28.0	7.9	160	16	29.0	47	87	SK	120
70/05/13	11 30		2.1	24.5	6.8	249	13	1.3	29	145	SK	21
70/05/14	09 50		1.0	24.5	7.0	266	13	5.0	27	141	SK	21
70/06/16	09 51		0.2	27.5	7.0	255	10	12.0	31	122	SK	14
70/06/17	07 15		0.0	26.5	7.5	270	10	1.7	38	124	8	17
70/06/18	10 20		0.5	27.0	7.8	257	10	3.0	35	120	SK	20
70/07/14	08 25		3.7	30.0	8.4	1190	7	1.0	25	73	8	12
70/07/15	09 30		3.5	30.0	7.7	176	6	1.0	27	73	SK	11
70/07/16	08 52		3.2	30.0	8.1	174	7	1.3	25	85	SK	11
70/08/25	09 00		2.5	29.0	7.8	188	9	6.0	15	77	9	16
70/08/26	11 05		3.4	29.5	7.8	213	10	3.0	22	81	9	12
70/08/27	05 40		2.6	29.5	8.2	183	10	6.0	22	78	9	12
70/09/22	09 10		1.5	26.5	7.0	470	94	1.0	19	99	5	12
70/09/23	10 12		2.4	24.0	7.6	200	12	2.0	19		8	8
70/09/24	05 23		1.9	25.0	7.4	253	29	1.0	19		7	12
70/10/13	10 02		1.0	26.5	8.1	218	14	1.0	21	95	9	13
70/10/14	08 50		1.8	26.5	8.4	241	14	1.0	21	102	10	13
70/10/15	06 15		1.5	26.5	7.7	239	14	1.0	14	99		14
70/11/17	08 53		6.0	19.0	7.6	313	17	1.0	22	127	9	11
70/11/18	08 32		6.7	18.5	7.7	311	18	1.0	21	124	10	11
70/11/19	05 19		5.0	19.0	7.6	313	19	1.0K	23	138	10	11
71/02/09	08 20		2.2	16.0	7.9	320	19		19	100	SK	9
71/02/10	09 00		6.1	13.0	7.6	335	20	5.0	14	154	SK	8
71/02/11	07 13		8.4	11.0	7.5	300	20	14.0	17	110	SK	4
71/05/10	17 30		6.9	29.5	7.6	343		5.0	45		SK	
71/05/11	14 20		6.1	29.0	6.0	386		5.0K	40		SK	
71/05/12	08 45		0.8	23.0	6.1	449		5.0K	40		SK	

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118003 JP-03
25 49 55.0 080 54 45.0
TAMIAI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

7777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00625 TOT KJEL N MG/L	00660 ORTHOPO4 P04 MG/L	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CAC03 MG/L	01090 ZINC ZN,DISS UG/L	01025 CADMIUM CD,DISS UG/L	01000 ARSENIC AS,DISS UG/L	01020 BORON B,DISS UG/L
70/05/12	17 30		8	1.142	1.760	2.320	1.680	103	160	50K	50K	95
70/05/13	11 30		1	0.025	0.058	0.031	0.015	138				
70/05/14	09 50		1	0.045	0.099	0.060	0.035	134				
70/06/16	09 51		1	0.028	0.038	0.033	0.022	118				
70/06/17	07 15		1	0.030	0.037	0.029	0.017	120				
70/06/18	10 25		1	0.023	0.032	0.044	0.031	110	22	20K	50K	56
70/07/14	08 25		1	0.005K	0.006	0.006	0.005K	75				
70/07/15	09 30		1	0.005K	0.005	0.005K	0.005K	71				
70/07/16	08 52		1	0.031	0.038	0.012	0.006	75	20K	20K	50K	36
70/08/25	09 00		0.4	0.075	0.058	0.008	0.008K	85				
70/08/26	11 05		1	0.007	0.036	0.007	0.005K	74				
70/08/27	05 40		1	0.025	0.044	0.047	0.026	66	20K	20K	50K	20
70/09/22	09 10		1	0.005K	0.024	0.005K	0.005K	78				
70/09/23	10 12		1	0.005K	0.018	0.015	0.005K	76	20K	20K	50K	22
70/09/24	05 23		1	0.005K	0.009	0.015	0.005K	80				
70/10/13	10 02		1	0.006	0.016	0.005K	0.005K	93				
70/10/14	08 50		1	0.005	0.017	0.030	0.024	103				
70/10/15	06 15		1	0.010	0.014	0.005K	0.005K	95				
70/11/17	08 53		1	0.006	0.021	0.008	0.020	114	20K	20K	50K	76
70/11/18	08 32		1	0.012	0.040	0.010	0.010	120				
70/11/19	05 19		1	0.020	0.023	0.006	0.005K	128				
71/02/09	08 20		1	0.014	0.031	0.015	0.005K	88				
71/02/10	09 00		1	0.005K	0.014	0.012	0.005K	132				
71/02/11	07 13		0.5	0.005	0.016	0.015	0.005K	95				

118003 JP-03
25 49 55.0 080 54 45.0
MIAMI CANAL AT BRIDGE #112.

77777777
0000 FEET DEPTH

[illegible]

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118003 JP-03
25 49 55.0 080 54 45.0
TAMIAI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

7777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01070 PHOS-T P-SPEC UG/L	01045 IRON TOTAL UG/L	01060 MOLY MO-DISS UG/L	01055 MANGNESE MN UG/L	01105 ALUMINUM AL-TOT UG/L	01010 BERYLLIUM BE-DISS UG/L	01040 COPPER CU-DISS UG/L	01075 SILVER AG-DISS UG/L	01065 NICKEL NI-DISS UG/L	01035 COBALT CO-DISS UG/L
70/05/12	17 30	250K	2680	40	100K	40.0	3800	0.50K	75	5.0K	50K	50K
70/06/16	09 51		40	50	40K	10.0K			10K	2.0K	20K	20K
70/06/17	07 15	100K	50	90	40K	20.0	40K	0.20K	10K	2.0K	20K	20K
70/06/18	10 20		50	30	40K	350.0						
70/07/14	08 25		30	50	40K	40.0	40K	0.20K	10K	2.0K	20K	20K
70/07/15	09 30	100K	40	50	40K	20.0						
70/07/16	08 52		40	50	40K	180.0						
70/08/25	09 00		50	40	40K	50.0						
70/08/26	11 05	100K	40	70	40K	30.0	40K	0.20K	10K	2.0K	20K	20K
70/08/27	05 40		20	20	40K	20.0	40K	0.20K	10K	2.0K	20K	20K
70/09/22	09 10	100K	20	20	40K	50.0						
70/09/23	10 12		10	30	40K	30.0						
70/09/24	05 23		30	10K	40K	10.0	40K	0.20K	10K	10.0K	20K	20K
70/10/13	10 02	100K	10K	10K	40K	120.0	40K	0.20K	10K	10.0K	20K	20K
70/10/14	08 50		40	40	40K	30.0	40K	0.20K	10K	10.0K	20K	20K
70/10/15	06 15		40	50	40K	50.0						
70/11/17	08 53		40	40	40K	10.0K						
70/11/18	08 32		40	50	40K	40.0						
70/11/19	05 19		50	50	40K	150.0						
71/02/09	08 20		50K			40.0						
71/02/10	09 00					40.0						
71/02/11	07 13											

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118003 JP-03
25 49 55.0 080 54 45.0
TAMIAMI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0 77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01049 LEAD PB,DISS UG/L	01030 CHROMIUM CR,DISS UG/L	01085 VANADIUM V,DISS UG/L	01005 BARIUM BA,DISS UG/L	01080 STRONTIUM SR,DISS UG/L	71900 MERCURY HG,TOTAL UG/L
70/05/12	17	30	150	25K	100K	130	310	1.0
70/06/18	10	20	40K	10K	40K	18	76	0.8
70/07/16	08	52	40K	10K	40K	9	44	0.2K
70/08/27	05	40	40K	10K	40K	3	7	0.7
70/09/23	10	12	40K	10K	40K	2K	8	0.2K
70/10/15	06	15	40K	10K	40K	9	125	0.2K
70/11/17	08	53	40K	10K	40K	4	155	1.3
71/02/09	08	20		10K				0.2K
71/05/10	17	30						0.5

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118005 JP-05
25 51 15.0 081 13 15.0
TAMIAI CANAL AT BRIDGE #86.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0 77777777
0000 FEET DEPTH

DESCRIPTION

TAMIAI CANAL AT BRIDGE #86. THIS IS TURNER RIVER AND IS 8.1 MILES WEST
OF MONROE STATION. BIG CYPRESS SWAMP STUDY STATION #28.

FLORIDA

SOUTHEAST

LOWER FLA

STORET RETRIEVAL DATE 71/10/20

118005 JP-05
25 51 15.0 081 13 15.0
TAMIAI CANAL AT BRIDGE #86.
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

JETPORT STUDY

7777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CONDUCTIVITY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKSJ JU	00080 COLOR PT-CO UNITS	00410 T ALK CACO3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C MG/L
70/05/12	20 10		6.4	26.5	6.6	203	7	5.0	29	122	SK	14
70/05/13	09 00		2.1	25.5	6.2	190	7	3.0	28	125	SK	15
70/05/14	08 30		3.7	26.5	6.8	171	5	1.3	25	157	SK	14
70/06/16	07 15		2.3	24.5	6.3	310	3	3.0	53	149	SK	22
70/06/17	11 41		2.7	27.0	7.7	285	5	2.3	38	155	SK	12
70/06/18	07 50		1.8	26.0	7.8	1000	3	4.0	44	128	7	24
70/07/14	07 15		2.9	29.0	2.8	198	4	1.0	32	136	SK	10
70/07/15	11 15		1.8	29.5	7.5	249	4	0.7	43	114	SK	9
70/07/16	07 45		1.6	27.5	8.1	239	8	9.0	44	117	9	9
70/08/25	07 35		2.3	28.5	7.8	275	8	4.0	26	111	10	9
70/08/26	09 50		1.9	27.0	8.0	265	17	1.0	21	148	11	8
70/08/27	05 10		2.8	24.0	7.9	270	16	3.0	28	137	6	8
70/09/22	12 04		2.9	23.0	7.0	255	9	1.0	30	130	7	37
70/09/23	08 30		0.2	26.0	7.5	499	11	1.0K	20	138	9	8
70/09/24	08 15		0.4	26.0	7.6	370	11	2.0	22	101	9	12
70/10/13	08 45		0.0	26.5	8.2	370	12	2.0	20	140	10	9
70/10/14	10 35		0.0	18.5	7.0	250	11	4.0	19	157	10	16
70/10/15	05 15		0.6	17.5	7.3	360	11	1.0	18	189	9	8
70/11/17	07 50		0.8	16.0	7.2	352	32	1.0	13	115	9	8
70/11/18	07 45		0.8	16.0	8.0	430	12	7.0	22	109	SK	7
70/11/19	06 45		4.4	14.0	7.9	250	12	7.0	19	109	SK	8
71/02/09	07 30		10.7	12.0	7.0	240	12	5.0K	25	109	SK	9
71/02/10	07 50		5.8	28.5	6.6	235	12	5.0K	20	109	SK	8
71/02/11	06 35		2.6	26.0	6.4	210	12	6.0	25	109	SK	7
71/05/10	16 25		1.3	26.0	6.4	276	12	6.0	25	109	SK	8
71/05/11	13 20											9
71/05/12	09 20											

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118005 JP-05
25 51 15.0 081 13 15.0
TAMIAI CANAL AT BRIDGE #86.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

DATE FROM TO	TIME OF DAY	DEPTH FEET	00625 TOT KJEL N	00660 ORTHOPO4 P04 MG/L	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CAC03 MG/L	01090 ZINC ZN-DISS UG/L	01025 CADMIUM CD-DISS UG/L	01000 ARSENIC AS-DISS UG/L	01020 BORON B-DISS UG/L
70/05/12	20 10		1	0.063	0.124	0.075	0.061	111				
70/05/13	09 00		1	0.055	0.110	0.581	0.612	119				
70/05/14	08 30		1	0.035	0.071	0.049	0.020	109				
70/06/16	07 15		0.4	0.073	0.078	0.078	0.066	144				
70/06/17	11 41		0.4	0.013	0.018	0.016	0.012	163				
70/06/18	07 50		1	0.013	0.016	0.016	0.010	145				
70/07/14	07 15		2	0.016	0.023	0.020	0.014	150				
70/07/15	11 15		0.5	0.005K	0.005K	0.005K	0.005K	122				
70/07/16	07 45		1	0.005K	0.005K	0.005K	0.005K	120				
70/08/25	07 35		0.4	0.005K	0.014	0.010	0.005K	99				
70/08/26	09 50		0.3	0.020	0.044	0.005	0.005K	99				
70/08/27	05 10		0.5	0.005K	0.026	0.020	0.005K	97				
70/09/22	12 04		1	0.005K	0.020	0.010	0.005K	99				
70/09/23	08 30		1	0.005K	0.025	0.009	0.005K	91				
70/09/24	08 15		0.3	0.005K	0.005K	0.036	0.005K	116				
70/10/13	08 45		1	0.029	0.050	0.009	0.005K	125				
70/10/14	10 35		1	0.019	0.040	0.010	0.008	128				
70/10/15	05 15		1	0.020	0.034	0.010	0.010	89				
70/11/17	07 50		2	0.151	0.210	0.019	0.014	128				
70/11/18	07 45		1	0.034	0.060	0.021	0.020	142				
70/11/19	06 45		1	0.054	0.078	0.010	0.010	192				
71/02/09	07 30		1	0.005K	0.029	0.014	0.005K	103				
71/02/10	07 50		0.5	0.005K	0.017	0.011	0.005K					
71/02/11	06 35		1	0.005	0.027	0.012	0.005K	102				

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118005 JP-05
25 51 15.0 081 13 15.0
TAMIAI CANAL AT BRIDGE #86.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01045 IRON TOTAL UG/L	01055 MANGNESE MN UG/L	00916 CALCIUM CA-TOT MG/L	00927 MGNSIUM MG.TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA.TOT MG/L	00937 PTSSIUM K.TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 NO2&NO3 N MG/L
70/05/12	20 10		40	10K	33	2.0		11.0	0.6		0.10	0.040
70/05/13	09 00									160	0.18	0.045
70/05/14	08 30		20	10K	33	1.9		11.0	0.5	154	0.11	0.045
70/06/16	07 15		30	10K	39	2.1		6.6	0.8	196	0.07	0.033
70/06/17	11 41									272	0.18	0.019
70/06/18	07 50	10K		10K	36	1.9		5.9	0.6	246	0.13	0.008
70/07/14	07 15	170		1910	45	1.6		5.1	0.3	388	0.12	68.000
70/07/15	11 15	50		20	45	1.7		5.3	0.5	143	0.08	0.005K
70/07/16	07 45	30		20	47	1.8		5.8	0.5	168	0.07	0.006
70/08/25	07 35	40		170	45	1.6		5.3	1.3	146	0.07	0.030
70/08/26	09 50	40		80	39	1.6		5.0	0.5	166	0.07	0.010
70/08/27	05 10	40		22	40	1.8		5.1	1.4	160	0.06	0.040
70/09/22	12 04	60		20	38	1.5		4.8		159	0.32	0.008
70/09/23	08 30	10K		10K	42	1.6		4.5		150	0.65	0.020
70/10/13	08 45	80		70	49	1.8		8.0	1.0	308	0.18	0.030
70/10/14	10 35	100		80	90	2.3	2.2	8.0	2.9	179	0.57	0.220
70/10/15	05 15	10K		10K	68	2.3	1.6	8.0	1.0	175	0.39	0.005K
70/11/17	07 50	460		60	41	2.3	1.5	8.0	0.9	129	0.38	0.020
70/11/18	07 45	330		110	65	2.1		7.4	0.7	172	1.21	0.210
70/11/19	06 45	400		10K	63	1.9		7.4	0.9	186	0.18	0.020
71/02/09	07 30	50		30	66	2.2	0.4	8.2	0.7	259	0.30	0.050
71/02/10	07 50	50		100	45	2.3	0.2	8.0	0.9	170	0.09	8.450
71/02/11	06 35	50		50	46	2.4	0.1	8.0	0.9		0.16	0.040
71/05/10	16 25				44	2.3	0.6		0.7	145	0.12	7.100
71/05/11	13 20						0.6			154		
71/05/12	09 20						0.7			165		

STORET RETRIEVAL DATE 71/10/20

118005 JP-05
25 51 15.0 081 13 15.0
TAMIAI CANAL AT BRIDGE #86.
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

JETPORT STUDY

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01070 PHOS-T P-SPEC UG/L	01045 IRON TOTAL UG/L	01060 MOLY MO-DISS UG/L	01055 MANGNESE MN UG/L	01105 ALUMINUM AL-TOT UG/L	01010 BERYLIUM BE-DISS UG/L	01040 COPPER CU-DISS UG/L	01075 SILVER AG-DISS UG/L	01065 NICKEL NI-DISS UG/L	01035 COBALT CO-DISS UG/L
70/05/12	20	10		40		10.0K						
70/05/14	08	30		20		10.0K						
70/06/16	07	15		30		10.0K						
70/06/18	07	50		10K		10.0K						
70/07/14	07	15		170		1910.0						
70/07/15	11	15		50		20.0						
70/07/16	07	45		30		20.0						
70/08/25	07	35		40		170.0						
70/08/26	09	50		40		80.0						
70/08/27	05	10		40		22.0						
70/09/22	12	04		60		20.0						
70/09/23	08	30		10K		10.0K						
70/09/24	08	15		20		70.0						
70/10/13	08	45		80		170.0						
70/10/14	10	35		100		80.0						
70/10/15	05	15		10K		10.0K						
70/11/17	07	50		460		60.0						
70/11/18	07	45		330		110.0						
70/11/19	06	45		400		10.0K						
71/02/09	07	30		50		30.0						
71/02/10	07	50		50		100.0						
71/02/11	06	35		50		50.0						

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118006 JP-06
25 43 15.0 080 52 20.0
BRIDGE ON LOOP ROAD (STATE 94)
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

7777777
0000 FEET DEPTH

DESCRIPTION

BRIDGE ON LOOP ROAD (STATE 94), 2.9 MILES WEST OF 40 MILE BEND AT DADE-
COLLIER COUNTY LINE. WATER SAMPLES FROM CANAL AT NE CORNER OF BRIDGE.

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118006 JP-06
25 43 15.0 080 52 20.0
BRIDGE ON LOOP ROAD (STATE 94)
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CNDUCTVY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKS JU	00080 COLOR PT-CO UNITS	00410 T ALK CACO3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C C MG/L
70/05/12	13 45		4.0	27.5	7.0	212	9	1.3	24	159	5K	17
70/05/13	13 20		4.2	28.5	6.9	218	9	3.0	22	157	5K	20
70/05/14	09 45		3.8	26.0	6.8	223	9	5.0	22	125	5K	14
70/06/16	10 48		1.5	29.5	7.7	290	10	4.0	23	162	5K	13
70/06/17	07 35		1.1	28.5	7.7	300	10	1.3	20	154	5K	14
70/06/18	10 40		1.2	29.0	7.8	280	10	1.3	22	124	5K	22
70/07/14	10 44		2.9	30.0	7.8	215	8	1.3	22	115	5K	10
70/07/15	09 00		2.7	30.0	7.7	220	8	0.7	26	112	5K	12
70/07/16	09 33		2.4	30.5	7.8	180	8	1.0	23	122	5K	10
70/08/25	12 15		1.4	29.5	6.8	284	11	5.0	10	113	8	10
70/08/26	11 25		1.2	29.5	7.8	269	12	3.0	12	111	8	10
70/08/27	07 42		1.1	28.5	8.0	259	12	12.0	16	102	8	12
70/09/22	11 00		0.9	25.0	7.4	240	19	9.0	14	139	5	9
70/09/23	10 35		0.7	25.0	7.6	288	30	1.0	14		6	9
70/09/24	07 30		0.5	24.0	7.0	202	22	1.0	23		7	8
70/10/13	12 25		1.6	27.0	8.3	290	13	1.0	16	120	8	9
70/10/14	08 30		0.7	26.0	8.3	303	13	1.0	16	124	9	10
70/10/15	06 35		0.5	26.0	8.2	277	14	6.0	14	104	9	7
70/11/17	12 30		3.0	21.0	7.0	412	21	1.0K	21	167	9	12
70/11/18	08 50		0.9	15.0	7.2	398	30	1.0	22	141	9	8
70/11/19	07 35		3.1	15.0	7.2	505	47	1.0	17	140	9	10
71/02/09	09 20		3.6	20.0	7.6	597	45	47.0	19	119	5K	13
71/02/10	09 25		3.2	16.0	7.4	599	42	32.0	21	107	5K	11
71/02/11	07 40		4.1	14.0	7.4	597	42	7.0	20	143	5K	10

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118006 JP-06
25 43 15.0 080 52 20.0
BRIDGE ON LOOP ROAD (STATE 94)
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00625 TOT KJEL N MG/L	00660 ORTHOPO4 P04 MG/L	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CAC03 MG/L	01090 ZINC ZN-DISS UG/L	01025 CADMIUM CD-DISS UG/L	01000 ARSENIC AS-DISS UG/L	01020 BORON B-DISS UG/L
70/05/12	13 45		1	0.035	0.050	0.055	0.035	145				
70/05/13	13 20		1	0.020	0.020	0.020	0.020	145				
70/05/14	09 45		1	0.010	0.029	0.020	0.010	146				
70/06/16	10 48		1	0.010	0.010	0.010	0.005	141				
70/06/17	07 35		1	0.012	0.013	0.013	0.005K	132				
70/06/18	10 40		1	0.006	0.012	0.014	0.005K	142				
70/07/14	10 44		1	0.005K	0.005K	0.005K	0.005K	104				
70/07/15	09 00		1	0.005K	0.005K	0.005K	0.005K	108				
70/07/16	09 33		1	0.005K	0.005K	0.005K	0.005K	103				
70/08/25	12 15		1	0.005	0.014	0.070	0.005K	82				
70/08/26	11 25		1	0.005K	0.020	0.005K	0.005K	90				
70/08/27	07 42		1	0.214	0.280	0.011	0.005K	82				
70/09/22	11 00		1	0.007	0.017	0.005	0.005K	80				
70/09/23	10 35		1	0.005K	0.005	0.005	0.005K	84				
70/09/24	07 30		1	0.275	0.305	0.082	0.005K	40				
70/10/13	12 25		1	0.005K	0.007	0.005	0.005K	117				
70/10/14	08 30		1	0.009	0.013	0.008	0.005K	123				
70/10/15	06 35		1	0.020	0.031	0.005K	0.005K	97				
70/11/17	12 30		1	0.032	0.033	0.005K	0.005K	148				
70/11/18	08 50		1	0.050	0.088	0.042	0.036	134				
70/11/19	07 35		1	0.005K	0.012	0.005K	0.005K	125				
71/02/09	09 20		1	0.015	0.067	0.021	0.005K	114				
71/02/10	09 25		1	0.014	0.036	0.027	0.005K	104				
71/02/11	07 40		1	0.015	0.028	0.017	0.005K	136				

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118006 JP-06
25 43 15.0 080 52 20.0
BRIDGE ON LOOP ROAD (STATE 94)
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01045 IRON TOTAL UG/L	01055 MANGNESE MN UG/L	00916 CALCIUM CA-TOT MG/L	00927 MAGNESIUM MG-TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA-TOT MG/L	00937 PTSSIUM K-TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 NO2&NO3 N MG/L
70/05/12	13 45		10	10K	28	2.4		11.0	0.5		0.02	0.005K
70/05/13	13 20		80	30	40	2.8		13.0	1.1	183	0.03	0.005K
70/05/14	09 45		10K	10K	34	2.9		14.0	1.0	192	0.01	0.010
70/06/16	10 48		10K	10K	33	2.7		13.0	1.2	210	0.08	0.010
70/06/17	07 35		10K	10K	36	2.8		13.0	1.0	215	0.10	0.005K
70/06/18	10 40		50	80	41	2.3		11.0	1.2	232	0.09	0.005K
70/07/14	10 44		40	20	42	2.3		11.0	1.0	155	0.08	0.007
70/07/15	09 00		30	20	47	2.3		11.0	0.8	170	0.06	0.005
70/07/16	09 33		50	300	41	1.8		8.0	0.7	130	0.08	0.006
70/08/25	12 15		50	50	40	1.9		7.8	0.7	188	0.08	0.005K
70/08/26	11 25		100	230	45	2.0		8.4	2.3	166	0.14	0.005
70/08/27	07 42		140	100	44	1.8		7.8		154	0.10	0.060
70/09/22	11 00		10	50	36	2.1		8.2		142	0.59	0.005
70/09/23	10 35		40	50	46	2.0		7.6		165	0.54	0.005K
70/09/24	07 30		10	70	57	2.3	1.3	9.5	0.7	116	0.19	0.005K
70/10/13	12 25		40	180	56	2.2	1.9	9.7	3.0	167	0.22	0.010
70/10/14	08 30		10	100	48	2.3	1.8	10.0	2.0	179	0.08	0.010
70/10/15	06 35		10	20	77	3.1		16.0	0.9	147	0.07	0.020
70/11/17	12 30		120	50	57	1.9		9.6		202	0.24	0.010
70/11/18	08 50		40	10K	66	3.1		16.0	10.0	200	0.53	0.030
70/11/19	07 35		280	200	97	4.3	1.1	24.0	3.9	234	0.14	0.020
71/02/09	09 20		200	100	98	4.3		24.0	1.9	387	0.02	0.570
71/02/10	09 25		0.2	0.1			1.4			412	0.13	0.010K
71/02/11	07 40						1.0			364	0.07	0.010K

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118006 JP-06
25 43 15.0 080 52 20.0
BRIDGE ON LOOP ROAD (STATE 94)
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

7777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01070 PHOS-T P-SPEC UG/L	01045 IRON TOTAL UG/L	01060 MOLY MO-DISS UG/L	01055 MANGNESE MN UG/L	01105 ALUMINUM AL,TOT UG/L	01010 BERYLIUM BE,DISS UG/L	01040 COPPER CU-DISS UG/L	01075 SILVER AG-DISS UG/L	01065 NICKEL NI-DISS UG/L	01035 COBALT CO-DISS UG/L
70/05/12	13	45		10		10.0K						
70/05/14	09	45		80		30.0						
70/06/16	10	48		10K		10.0K						
70/06/17	07	35		10K		10.0K						
70/06/18	10	40		10K		10.0K						
70/07/14	10	44		50		80.0						
70/07/15	09	00		40		20.0						
70/07/16	09	33		30		20.0						
70/08/25	12	15		50		300.0						
70/08/26	11	25		50		50.0						
70/08/27	07	42		100		230.0						
70/09/22	11	00		140		100.0						
70/09/23	10	35		10		50.0						
70/09/24	07	30		40		50.0						
70/10/13	12	25		10		70.0						
70/10/14	08	30		40		180.0						
70/10/15	06	35		10		100.0						
70/11/17	12	30		10		20.0						
70/11/18	08	50		120		50.0						
70/11/19	07	35		40		10.0K						
71/02/09	09	20		280		200.0						
	09	25		200		100.0						
71/02/10	09	25		0.2		0.1						

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118007 JP-07
25 47 05.0 080 51 00.0
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0 77777777
0000 FEET DEPTH

DESCRIPTION

CANAL ON WEST SIDE OF LEVEE L-28 AT WATER LEVEL GAGE. COLLECT WATER
SAMPLE ADJACENT TO GAGE. STATION A SHORT DISTANCE NORTH OF BIG CYPRESS
SWAMP STUDY STATION #34.

STORET RETRIEVAL DATE 7/1/10/20

JETPORT STUDY

118007 JP-07
25 47 05.0 080 51 00.0
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CONDUCTIVITY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKS JU	00080 COLOR PT-CO UNITS	00410 T ALK CACO3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C MG/L
70/05/12	14	40	6.8	28.0	7.3	255	10	4.0	17	178	5K	11
70/05/13	12	15	6.3	27.0	6.9	291	10	7.0	18	182	5K	12
70/05/14	07	30	4.3	25.0	7.3	247	10	5.3	17	177	5K	14
70/06/16	16	15	4.0	30.0	7.7		10	8.0	27	162	5K	16
70/06/17	08	10	2.4	28.5	7.8	278	10	1.7	24	155	5K	14
70/06/18	11	25	3.0	30.0	7.9	330	10	1.7	28	149	5K	15
70/07/14	09	20	4.4	30.0		440	6	1.3	28		13	11
70/07/15	08	25	3.9	30.0	7.8	210	6	1.0	33	120	5K	13
70/07/16	10	20	3.5	31.0	7.8	192	6	1.0	37	124	5K	9
70/08/25	09	35	2.4	30.0	6.9	274	11	5.0	20	108	10	10
70/08/26	12	00	3.0	30.0	7.4	240	11	10.0	16	105	9	9
70/08/27	06	20	3.0	29.0	8.1	241	12	37.0	16	104	9	9
70/09/22	09	00	2.1	30.0	6.7	280	26	5.0	19	152	5	11
70/09/23	10	10	2.0	26.0	7.3	302	16	5.0	15		6	10
70/09/24	05	54	1.9	25.0	6.8	273	25	2.0	15		9	9
70/10/13	10	37	2.4	27.5	8.3	323	18	3.0	18	127	9	11
70/10/14	06	00	2.2	27.0			30					
70/10/15	07	10	1.7	27.0	8.3	277	18	11.0	19	106	9	10
70/11/17	09	22	3.6	20.5	8.0	414	23	1.0	14	170	8	10
70/11/18	09	00	3.5	20.0	7.4	418	23	3.0	15	156	8	9
70/11/19	05	50	3.4	20.5	7.4	420	23	2.0	11	162	9	8
71/02/09	09	05	7.3	16.0	8.1	401	18	20.0	21	133	7	9
71/02/10	10	10	7.8	15.0	7.7	392	18	5.0	14	120	5K	9
71/02/11	08	10	8.0	13.0	7.7	396	20		16	93	5K	8
71/05/10	18	45	8.6	28.0	7.0	351		5.0K	13		5K	5K
71/05/11	15	10	8.4	30.0	7.9	354		5.0K	10		5K	5K
71/05/12	06	50	7.0	27.0	7.9	358		5.0	12		5K	5K

STORET RETRIEVAL DATE 71/10/20

JEI PORT STUDY

118007 JP-07
25 47 05.0 080 51 00.0
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

7777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00625 TOT KJEL N MG/L	00660 ORTHOPO4 P04 MG/L	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CAC03 MG/L	01090 ZINC ZN-DISS UG/L	01025 CADMIUM CO-DISS UG/L	01000 ARSENIC AS-DISS UG/L	01020 BORON B-DISS UG/L
70/05/12	14 40		0.5	0.015	0.030	0.020	0.010	159	50	20K	50K	54
70/05/13	12 15		1	0.020	0.025	0.015	0.010	160				
70/05/14	07 30		1	0.015	0.050	0.011	0.012	163				
70/06/16	16 15		1	0.008	0.016	0.015	0.005K	149				
70/06/17	08 10		1	0.009	0.014	0.012	0.005K	141				
70/06/18	11 25		1	0.011	0.015	0.012	0.007	142	20K	20K	50K	28
70/07/14	09 20		3	0.005K	0.008	0.008	0.007	138				
70/07/15	08 25		1	0.005K	0.005K	0.005K	0.005K	107				
70/07/16	10 20		1	0.005K	0.005K	0.005K	0.005K	108	20K	20K	50K	22
70/08/25	09 35		0.5	0.012	0.018	0.008	0.005K	94				
70/08/26	12 00		1	0.005K	0.020	0.005K	0.005K	80				
70/08/27	06 20		0.5	0.005K	0.030	0.007	0.005K	80	20K	20K	50K	28
70/09/22	09 00		1	0.005K	0.018	0.012	0.005K	91				
70/09/23	10 10		1	0.005K	0.017	0.010	0.005K	114	20K	20K	50K	250
70/09/24	05 54		1	0.005K	0.009	0.008	0.005K	88				
70/10/13	10 37		1	0.005K	0.010	0.010	0.005K	118				
70/10/14	08 00		1	0.010	0.021	0.010	0.005K					
70/10/15	07 10		1	0.009	0.021	0.005K	0.005K	93				
70/11/17	09 22		1	0.005K	0.030	0.016	0.005K	142	20K	20K	50K	10K
70/11/18	09 00		1	0.019	0.045	0.036	0.016	143				
70/11/19	05 50		1	0.005K	0.024	0.005	0.005K	138				
71/02/09	09 05		1	0.027	0.027	0.014	0.005K	123				
71/02/10	10 10		1	0.025	0.021	0.016	0.014	108				
71/02/11	08 10		1	0.005	0.017	0.015	0.005K	83				

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118007 JP-07
25 47 05.0 080 51 00.0
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

DATE FROM TO		TIME OF DAY	DEPTH FEET	01045 IRON TOTAL UG/L	01055 MANGNESE MN UG/L	00916 CALCIUM CA-TOT MG/L	00927 MGNSIUM MG, TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA, TOT MG/L	PTSSIUM K, TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 NO2&NO3 N MG/L
70/05/12	14	40		140	10K	32	3.4		17.0	1.1		0.04	0.018
70/05/13	12	15									198	0.07	0.010
70/05/14	07	30		10K	10	29	3.1		16.0	1.2	222	0.09	0.010
70/06/16	16	15									206	0.18	0.005
70/06/17	08	10		140	40	33	2.7		14.0	1.4	212	0.27	0.022
70/06/18	11	25		90	10K	37	2.6		14.0	1.0	268	0.16	0.027
70/07/14	09	20		190		50	1.8		8.9	1.7	349	0.52	43.000
70/07/15	08	25		180	20	41	1.9		9.0	0.8	175	0.06	0.007
70/07/16	10	20		240	50	43	2.0		9.1	0.6	139	0.08	0.009
70/08/25	09	35		220	10	39	1.8		8.0	0.6	172	0.09	0.010
70/08/26	12	00		270	50	37	1.8		7.8	0.6	141	0.08	0.020
70/08/27	06	20		260	80	39	1.9		8.3	0.9	148	0.09	0.040
70/09/22	09	00		320	10K	46	2.6		1.3		182	0.51	0.010
70/09/23	10	10		210	180	53	2.9		12.0	3.9	171	0.60	0.020
70/09/24	05	54		340	70	48	2.8		14.0		175	1.02	0.007
70/10/13	10	37		120	130	57	3.0	1.1	15.0	1.0	217	0.13	0.010
70/10/14	08	00		400	450	55	2.8	1.3	15.0	3.6		0.11	0.010
70/10/15	07	10		10	50	41	3.1		18.0	0.9	147	0.22	0.010
70/11/17	09	22		10	20	74	3.7		19.0	1.2	203	0.41	0.010K
70/11/18	09	00		320	60	63	3.1		19.0	1.6	206	0.41	0.020
70/11/19	05	50		280	10	63	3.8		15.0	1.6	207	0.43	0.020
71/02/09	09	05		500	230	71	4.2	0.2	15.0	1.9	272	0.06	0.250
71/02/10	10	10		300	70	70	4.1	0.0	14.0	1.8	302	0.28	0.050
71/02/11	08	10						0.0			231	0.24	0.050
71/05/10	18	45						0.1			224		
71/05/11	15	10						0.2			242		
71/05/12	06	50						0.3			211		

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118007 JP-07
25 47 05.0 080 51 00.0
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01070 PHOS-T P-SPEC UG/L	01045 IRON TOTAL UG/L	01060 MOLY MO, DISS UG/L	01055 MANGNESE MN UG/L	01105 ALUMINUM AL, TOT UG/L	01010 BERYLIUM BE, DISS UG/L	01040 COPPER CU-DISS UG/L	01075 SILVER AG, DISS UG/L	01065 NICKEL NI, DISS UG/L	01035 COBALT CO, DISS UG/L
70/05/12	14	40	100K	140	40K	10.0K	290	0.20K	42	2.0K	20	30
70/05/14	07	30		10K		10.0						
70/06/17	08	10		140		40.0						
70/06/18	11	25	100K	90	40K	10.0K	40K	0.20K	10K	2.0K	20K	20K
70/07/14	09	20		190								
70/07/15	08	25		180		20.0						
70/07/16	10	20	100K	240	40K	50.0	40K	0.20K	10K	2.0K	20K	20K
70/08/25	09	35		220		10.0						
70/08/26	12	00		270		50.0						
70/08/27	06	20	100K	260	40K	80.0	40K	0.20K	10K	2.0K	20K	20K
70/09/22	09	00		320		10.0K						
70/09/23	10	10	100K	210	40K	180.0	40K	0.20K	10K	2.0K	20K	20K
70/09/24	05	54		340		70.0						
70/10/13	10	37		120		130.0						
70/10/14	08	00		400		450.0						
70/10/15	07	10		10		50.0						
70/11/17	09	22	100K	10	40K	20.0	130	0.20K	10K	10.0K	20K	20K
70/11/18	09	00		320		60.0						
70/11/19	05	50		280		10.0						
71/02/09	09	05		500		230.0						
71/02/10	10	10		300		70.0						

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118007 JP-07
25 47 05.0 080 51 00.0
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0
77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01049 LEAD PB, DISS UG/L	01030 CHROMIUM CR, DISS UG/L	01085 VANADIUM V, DISS UG/L	01005 BARIUM BA, DISS UG/L	01080 STRONTIUM SR, DISS UG/L	71900 MERCURY HG, TOTAL UG/L
70/05/12	14	40	440	10K	40K	32	288	3.5
70/06/18	11	25	40K	10K	40K	5	12	2.4
70/07/16	10	20	40K	10K	40K	4	9	0.2K
70/08/27	06	20	40K	10K	40K	5	13	2.3
70/09/23	10	10	40K	10K	40K	15	96	0.2K
70/11/17	09	22	40K	10K	40K	19	320	1.0
71/02/09	09	05						0.2K
71/05/10	18	45						0.2K

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118008 JP-08
25 51 40.0 080 50 10.0
CANAL ON W SIDE OF LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0 77777777 0000 FEET DEPTH

DESCRIPTION

CANAL ON WEST SIDE OF LEVEE L-28. WATER SAMPLES TO BE COLLECTED ADJACENT TO CROSSOVER WHERE CANAL CHANGES FROM WEST TO EAST SIDE OF LEVEE (LOOKING NORTH). BIOLOGICAL STUDIES IN MARSH HABITATS ON WEST SIDE OF LEVEE ADJACENT TO 1ST TURNAROUND NORTH OF CROSSOVER.

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118008 JP-08
25 51 40.0 080 50 10.0
CANAL ON W SIDE OF LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

7777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CONDUCTIVITY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKS JU	00080 COLOR PT-CO UNITS	00410 T ALK CACU3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C C	
70/05/12	16 00		7.0	29.0	7.3	271	17	10.0	26	127	SK	16	
70/05/13	14 40		7.1	28.5	6.9	309	18	3.0	31	172	SK	24	
70/05/14	08 25		3.0	25.0	7.2	286	18	25.0	26	174	SK	18	
70/06/16	15 37		8.2	32.5	7.6	268	11	19.0	23	137	SK	12	
70/06/17	08 45		2.7	28.0	7.7		10	4.0	23	155	SK	23	
70/06/18	12 00		8.2	31.0	7.7	339	11	1.3	26	160	SK	24	
70/07/14	11 45		6.5	31.5	7.9		7	1.7	25	117	5	11	
70/07/15	07 50		3.5	29.0	7.9	245	8	3.0	23	126	SK	11	
70/07/16	10 45		5.2	31.5	7.8	208	8	1.0	28	129	SK	10	
70/08/25	10 05		5.0	29.0	6.9	250	14	14.0	17	119	9	11	
70/08/26	12 30		8.4	32.0	7.5	232	14	18.0	14	120	10	12	
70/08/27	06 50		2.7	28.0	8.0	332	14	2.0	16	119	5	12	
70/09/22	09 35		3.9	25.0	6.6	290	33	6.0	19	152	6	30	
70/09/23	11 47		7.1	28.0	7.1	341	21	18.0	19		7	11	
70/09/24	06 27		1.7	24.0	7.0	349	46	3.0	18		9	11	
70/10/13	11 10		5.8	27.0	8.1	320	26	8.0	20	110	10	12	
70/10/14	06 15		2.3	26.5	8.3	380	12	3.0	20	98	9	13	
70/10/15	07 45		2.1	25.5	7.9	380	29	2.0	18	123	9	13	
70/11/17	10 00		4.8	15.0	8.0	499	43	3.0	23	141	9	14	
70/11/18	09 30		7.1	17.0	6.9	499	42	2.0	21	190	9	12	
70/11/19	06 22		4.0	16.5	7.4	503	44	2.0	20	194	10	25	
71/02/09	09 50		9.9	12.0	8.1	505	48	90.0	44	138	SK	SK	
71/02/10	10 45		4.9	17.0	7.5	421	28	69.0	19	169	SK	SK	
71/02/11	08 40		5.3	15.0	7.6	302	26	45.0	22	120	6	SK	
71/05/10	19 40		11.6	28.0	7.6	313		5.0	15		SK	SK	
71/05/11	15 50		13.3	32.0	8.1			5.0K	17		SK	SK	
71/05/12	05 45		4.8	28.5	6.5	322		5.0K	10		SK	SK	

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25 51 40.0 080 50 10.0
CANAL ON W SIDE OF LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
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77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00625 TOT KJEL N MG/L	00660 ORTHOPO4 PO4 MG/L	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CAC03 MG/L	01090 ZINC ZN,DISS UG/L	01025 CADMIUM CD,DISS UG/L	01000 ARSENIC AS,DISS UG/L	01020 BORON B,DISS UG/L
70/05/12	16 00		1	0.025	0.049	0.050	0.026	144	250	50K	50K	100
70/05/13	14 40		1	0.042	0.085	0.050	0.012	152				
70/05/14	08 25		1	0.030	0.055	0.039	0.015	154				
70/06/16	15 37		1	0.005	0.012	0.008	0.008	134				
70/06/17	08 45		1	0.007	0.012	0.010	0.005K	166	20K	20K	50K	27
70/06/18	12 00		1	0.010	0.010	0.009	0.005K	140				
70/07/14	11 45		1	0.005K	0.005K			119				
70/07/15	07 50		1	0.005K	0.005K			118	20K	20K	50K	28
70/07/16	10 45		1	0.006	0.008	0.008	0.005K	86				
70/08/25	10 05		1	0.005K	0.009	0.012	0.005K	59				
70/08/26	12 30		1	0.005K	0.026	0.006	0.009	101	20K	20K	50K	18
70/08/27	06 50		1	0.005K	0.023	0.008	0.005K	82				
70/09/22	09 35		1	0.007	0.032	0.008	0.005K	113	20K	20K	50K	38
70/09/23	11 47		1	0.555	0.560	0.010	0.005K	90				
70/09/24	06 27		1	0.024	0.040	0.028	0.006	101				
70/10/13	11 10		1	0.005K	0.012	0.009	0.005K	96				
70/10/14	06 15		1	0.006	0.014	0.023	0.026	107				
70/10/15	07 45		1	0.020	0.030	0.005	0.005	120	20K	20K	50K	62
70/11/17	10 00		1	0.020	0.046	0.016	0.010	190				
70/11/18	09 30		1	0.097	0.087	0.063	0.064	167				
70/11/19	06 22		1	0.065	0.066	0.005	0.005K	118				
71/02/09	09 50		2	0.017	0.048	0.039	0.007	162				
71/02/10	10 45		1	0.040	189.000	0.023	0.008	112				
71/02/11	08 40		1	0.037	0.080	0.016	0.005K					

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SOUTHEAST
LOWER FLA
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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01045 IRON TOTAL UG/L	01055 MANGNESE MN UG/L	00916 CALCIUM CA-TOT MG/L	00927 MGNSIUM MG+TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA+TOT MG/L	00937 PTSSIUM K+TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 NO2&NO3 N MG/L
70/05/12	16 00		10K	10K	23	3.2		29.0	1.6	207	0.19	0.062
70/05/13	14 40									231	0.15	0.005K
70/05/14	08 25		20	10	23	3.5		30.0	2.0	276	0.15	0.005K
70/06/16	15 37		60	10K	32	2.8		17.0	1.5	202	0.42	0.005K
70/06/17	08 45									331	0.10	0.005K
70/06/18	12 00		20	10K	33	3.0		18.0	1.5	189	0.07	0.016
70/07/14	11 45		170	200	42	2.1		11.0	2.4	115	0.05	0.009
70/07/15	07 50		180	20	45	2.5		12.0	1.2	177	0.11	0.005K
70/07/16	10 45		260	20	43	2.3		12.0	1.4	138	0.06	0.005K
70/08/25	10 05		250	20	44	2.1		10.0	2.0	161	0.03	0.005K
70/08/26	12 30		280	50	46	2.3		5.5	1.6	158	0.05	0.030
70/08/27	06 50		200	220	42	1.9		10.0	2.4	174	0.07	0.030
70/09/22	09 35		460	50	49	2.9		21.0		171	1.74	0.010
70/09/23	11 47		40	10K	54	3.7		18.0	1.9	200	0.19	0.150
70/09/24	06 27		270	80	49	3.1		22.0		211	0.29	0.010
70/10/13	11 10		130	50	49	3.5	0.8	22.0	1.9	162	0.09	0.010
70/10/14	06 15		70	120	56	3.3	1.2	23.0	4.4	218	0.09	0.010
70/10/15	07 45		80	120	51	3.3	1.2	24.0	2.7	202	0.21	0.010
70/11/17	10 00		30	10K	62	4.2		35.0	3.0	229	0.71	0.010
70/11/18	09 30		440	60	64	4.0		34.0	4.3	274	0.78	0.010
70/11/19	06 22		370	30	66	4.4		34.0	3.7	289	0.61	0.010
71/02/09	09 50		2450	130	74	6.0	0.2	33.0	6.6	381	1.23	0.010K
71/02/10	10 45		510	120	70	4.0	0.2	20.0	2.4	317	0.30	0.020
71/02/11	08 40						0.5			241	0.52	0.030
71/05/10	19 40						0.0			206		
71/05/11	15 50									204		
71/05/12	05 45						0.9			205		

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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01070 PHOS-T P-SPEC UG/L	01045 IRON TOTAL UG/L	01060 MOLY MO-DISS UG/L	01055 MANGNESE MN UG/L	01105 ALUMINUM AL,TOT UG/L	01010 BERYLIUM BE-DISS UG/L	01040 COPPER CU-DISS UG/L	01075 SILVER AG-DISS UG/L	01065 NICKEL NI-DISS UG/L	01035 COBALT CO-DISS UG/L
70/05/12	16 00		250K	10K	100K	10.0K	100K	0.50K	190	5.0K		
70/05/14	08 25			20		10.0						
70/06/16	15 37			60		10.0K						
70/06/18	12 00		100K	20	40K	10.0K	40K	0.20K	10K	2.0K	20K	20K
70/07/14	11 45			170		200.0						
70/07/15	07 50			180		20.0						
70/07/16	10 45		100K	260	40K	20.0	40K	0.20K	10K	2.0K	20K	20K
70/08/25	10 05			250		20.0						
70/08/26	12 30			280		50.0						
70/08/27	06 50		100K	200	40K	220.0	40K	0.20K	10K	2.0K	20K	20K
70/09/22	09 35			460		50.0						
70/09/23	11 47		100K	40	40K	10.0K	40K	0.20K	10K	2.0K	20K	20K
70/09/24	06 27			270		80.0						
70/10/13	11 10			130		50.0						
70/10/14	06 15			70		120.0						
70/10/15	07 45			80		120.0						
70/11/17	10 00		100K	30	40K	10.0K	40K	0.20K	10K	10.0K	20K	20K
70/11/18	09 30			440		60.0						
70/11/19	06 22			370		30.0						
71/02/09	09 50			2450		130.0						
71/02/10	10 45			510		120.0						

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DATE FROM TO	TIME OF DAY	DEPTH FEET	01049 LEAD PB,DISS UG/L	01030 CHROMIUM CR,DISS UG/L	01085 VANADIUM V,DISS UG/L	01005 BARIUM BA,DISS UG/L	01080 STRONTIUM SR,DISS UG/L	71900 MERCURY HG,TOTAL UG/L
70/05/12	16 00							0.2
70/06/18	12 00		40K	10K	40K	3	4	2.2
70/07/16	10 45		40K	10K	40K	5	6	0.2K
70/08/27	06 50		40K	10K	40K	2K	4	6.8
70/09/23	11 47		40K	10K	40K	9	22	0.2K
70/11/17	10 00		40K	10K	40K	24	345	4.0
71/02/09	09 50							0.4
71/05/10	19 40							0.2K

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CANAL ON E SIDE OF LEVEE L-28
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DESCRIPTION

CANAL ON EAST SIDE OF LEVEE L-28. WATER SAMPLES TO BE COLLECTED
ADJACENT TO CROSSOVER WHERE CANAL CHANGES FROM WEST TO EAST SIDE OF
LEVEE (LOOKING NORTH). BIOLOGICAL STUDIES IN CANAL AND MARSH HABITATS ON
EAST SIDE OF LEVEE ADJACENT TO 1ST TURNAROUND NORTH OF CROSSOVER.

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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CONDUCTIVITY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKS JU	00080 COLOR PT-CO UNITS	00410 T ALK CACO3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C C MG/L
70/05/12	16 00		6.3	29.0	7.3	197	7	1.3	35	167	SK	9
70/05/13	14 40		6.1	30.0	7.0	202	7	2.0	34	127	SK	23
70/05/14	08 25		1.9	26.5	7.2	188	7	14.0	32	127	SK	16
70/06/16	15 37		5.7	32.5	7.6	239	7	3.0	37	105	SK	15
70/06/17	08 45		1.4	29.5	7.9		6	2.0	27	120	SK	14
70/06/18	12 00		4.5	26.5	7.7	245	7	2.3	33	103	SK	31
70/07/14	11 45		5.0	32.0	8.0	146	4	1.3	33	87	SK	10
70/07/15	07 45		3.7	30.0	7.8	170	4	1.0	32	90	SK	10
70/07/16	10 50		5.3	32.5	7.6	180	4	1.0	33	92	SK	29
70/08/25	10 10		1.8	29.5	6.5	189	8	1.0	25	68	10	29
70/08/26	12 37		4.4	31.0	7.6	189	9	6.0	22	74	10	12
70/08/27	07 00			29.5	7.9	195	9	1.0	26		10	10
70/09/22	09 43		3.3	26.0	7.2	326	47	2.0	23	97	7	11
70/09/23	11 55		3.9	28.0	7.0	199	11	3.0	25		7	11
70/09/24	06 35		2.8	25.0	7.2	7400	52	2.0	21		10	12
70/10/13	11 20		4.8	29.0	8.1	209	12	1.0	28	97	10	13
70/10/14	06 20		4.7	27.5	8.0	220	10	1.0	21	108	10	12
70/10/15	07 50		4.0	27.5	7.1	214	11	1.0	23	97	9	12
70/11/17	10 12		4.5	18.0	7.8	246	12	2.0	25	110	10	12
70/11/18	09 40		4.7	20.0	7.1	250	14	1.0	26	111	10	12
70/11/19	06 32		3.8	19.5	7.4	250	14	1.0K	26	112	10	14
71/02/09	09 40		4.0	17.0	8.0	327	19	15.0	24	146	SK	14
71/02/10	10 55		5.2	15.0	7.5	320	18	12.0	22	143	SK	13
71/02/11	08 45		6.0	13.0	7.6	324	18	12.0	22	145	SK	
71/05/10	19 45		12.8	22.0	8.0	307		5.0	25		SK	
71/05/11	16 00		15.9	28.0	9.0	289		11.0	20		SK	
71/05/12	06 05		9.7	25.0	7.9	308		5.0K	20		SK	

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DATE FROM TO	TIME OF DAY	DEPTH FEET	00625 TOT KJEL N MG/L	00660 ORTHOPO4 P04 MG/L	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CACO3 MG/L	01090 ZINC ZN-DISS UG/L	01025 CADMIUM CD-DISS UG/L	01000 ARSENIC AS-DISS UG/L	01020 BORON B-DISS UG/L
70/05/12	16 00		1	0.012	0.055	0.055	0.015	121	20K	20K	50K	50
70/05/13	14 40		1	0.025	0.040	0.020	0.015	114				
70/05/14	08 25		1	0.020	0.045	0.035	0.010	117				
70/06/16	15 37		1	0.020	0.043	0.017	0.010	104				
70/06/17	08 45		1	0.012	0.019	0.018	0.010	114				
70/06/18	12 00		1	0.011	0.017	0.011	0.005K	105	20K	20K	50K	38
70/07/14	11 45		0.5	0.008K	0.007	0.005	0.005K	82				
70/07/15	07 45		1	0.008	0.014	0.005K	0.005K	85				
70/07/16	10 50		0.4	0.005K	0.005K			86	20K	20K	50K	20
70/08/25	10 10		0.5	0.005K	0.010	0.010	0.005K	72				
70/08/26	12 37		1	0.007	0.022	0.015	0.005	56	20K	20K	50K	18
70/08/27	07 00		1	0.050	0.060	0.060	0.048	77				
70/09/22	09 43		1	0.013	0.023	0.009	0.005K	91	20K	20K	50K	38
70/09/23	11 55		1	0.005K	0.009	0.014	0.005K	77				
70/09/24	06 35		1	0.040	0.063	0.063	0.040	111				
70/10/13	11 20		1	0.005K	0.009	0.005K	0.005K	94				
70/10/14	06 20		1	0.005	0.014	0.005K	0.005K	108				
70/10/15	07 50		1	0.008	0.010	0.005	0.005K	93	20K	20K	50K	86
70/11/17	10 12		1	0.005K	0.018	0.015	0.005K	105				150
70/11/18	09 40		1	0.475	0.500	0.690	0.715	103				
70/11/19	06 32		1	0.100	0.110	0.005	0.005K	106				
71/02/09	09 40		1	0.019	0.052	0.035	0.010	140	20K	20K	50K	
71/02/10	10 55		1	0.017	0.048	0.014	0.005K	136				
71/02/11	08 45		1	0.022	0.050	0.021	0.005	136				

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CANAL ON E SIDE OF LEVEE L-28
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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01045 IRON TOTAL UG/L	01055 MANGNESE MN UG/L	00916 CALCIUM CA-TOT MG/L	00927 MGNSIUM MG, TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA, TOT MG/L	00937 PTSSIUM K, TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 NO2&NO3 N MG/L
70/05/12	16	00	30	10K	34	2.5		9.8	0.3	157	0.06	0.005K
70/05/13	14	40	40	10K	31	2.5		10.0	0.5	180	0.11	0.005K
70/05/14	08	25	390	70	45	2.6		9.4	0.6	181	0.14	0.005K
70/06/16	15	37	240	10	36	2.0		7.6	0.6	171	0.88	0.009
70/06/17	08	45								231	0.34	0.009
70/06/18	12	00	460	40K	42	2.2		7.8	0.8	155	0.29	0.029
70/07/14	11	45	100	10K	30	1.6		5.2	0.4	179	0.08	0.005K
70/07/15	07	45	160	20	35	1.7		5.1	0.3	130	0.15	0.005K
70/07/16	10	50	130	30	37	1.9		5.5	0.4	127	0.03	0.019
70/08/25	10	10	20	10K	31	1.5		4.7	1.3	123	0.02	0.005
70/08/26	12	37	160	100	29	1.5		5.2	0.9	121	0.11	0.040
70/08/27	07	00	110	30	29	1.6		5.3	1.2	108	0.12	0.040
70/09/22	09	43	110	50	33	1.9		7.2		192	0.19	0.020
70/09/23	11	55	10K	10K	33	2.3		7.0	2.0	122	0.28	0.110
70/09/24	06	35	120	50	36	2.0		7.8		501	0.21	0.010
70/10/13	11	20	60	50	40	2.1	0.6	7.4	0.5	128	0.08	0.006
70/10/14	06	20	40	130	43	2.2	0.8	7.8	2.6	139	0.04	0.010
70/10/15	07	50	80	150	41	2.0	0.9	7.5	0.5	138	0.12	0.020
70/11/17	10	12	30	10K	51	2.1		7.8	0.5	153	0.32	0.020
70/11/18	09	40	80	80	44	2.0		8.9	1.9	157	0.36	0.030
70/11/19	06	32	70	20	43	2.2		8.6	0.8	163	0.40	0.050
71/02/09	09	40	200	80	55	3.2	0.4	12.0	2.2	246	0.52	0.150
71/02/10	10	55	180	80	55	3.3	0.0	12.0	1.9	264	0.46	0.100
71/02/11	08	45					0.2			113	0.55	0.110
71/05/10	19	45					0.0			214		
71/05/11	16	00					0.0			246		
71/05/12	06	05					0.2			125		

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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	PHOS-T P-SPEC UG/L	01070	01045 IRON TOTAL UG/L	01060 MOLY MO, DISS UG/L	01055 MANGNESE MN UG/L	01105 ALUMINUM AL, TOT UG/L	01010 BERYLIUM BE, DISS UG/L	01040 COPPER CU, DISS UG/L	01075 SILVER AG, DISS UG/L	01065 NICKEL NI, DISS UG/L	01035 COBALT CO, DISS UG/L
70/05/12 16 00			100K		30	40K	10.0K	370	0.20K	24	2.0K		
70/05/13 14 40					40		10.0K						
70/05/14 08 25					390		70.0						
70/05/82 16 00													
70/06/16 15 37					240		10.0	40K	0.20K	10K	2.0K	20K	20K
70/06/18 12 00					460	40K	40.0K						
70/07/14 11 45					100		10.0K						
70/07/15 07 45					160	40K	20.0	40K	0.20K	10K	2.0K	20K	20K
70/07/16 10 50					130		30.0						
70/08/25 10 10					20		10.0K						
70/08/26 12 37					160								
70/08/27 07 00					110	40K	30.0	40K	0.20K	10K	2.0K	20K	20K
70/09/22 09 43					110		100.0						
70/09/23 11 55					10K	40K	50.0	40K	0.20K	10K	2.0K	20K	20K
70/09/24 06 35					120		10.0K						
70/10/13 11 20					60		50.0						
70/10/14 06 20					40		130.0						
70/10/15 07 50					80	40K	150.0	40K	0.20K	10K	10.0K	20K	20K
70/11/17 10 12					30	40K	10.0K	50	0.20K	10K	10.0K	20K	20K
70/11/18 09 40					80		80.0						
70/11/19 06 32					70		20.0						
71/02/09 09 40					200		80.0						
71/02/10 10 55					180		80.0						

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118009 JP-09
25 52 45.0 080 49 35.0
CANAL ON E SIDE OF LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01049 LEAD PB,DISS UG/L	01030 CHROMIUM CR,DISS UG/L	01085 VANADIUM V,DISS UG/L	01005 BARIUM BA,DISS UG/L	01080 STRONTIUM SR,DISS UG/L	71900 MERCURY HG,TOTAL UG/L
70/05/12	16 00							
70/05/82	16 00		136	10K	40K	58	70	0.5
70/06/18	12 00		40K	10K	40K	58	10	1.5
70/07/16	10 50		40K	10K	40K	6	2K	0.3
70/08/27	07 00		40K	10K	40K	2K	2K	4.7
70/09/23	11 55		40K	10K	40K	5	6	0.2K
70/10/15	07 50		40K	10K	40K	9	30	0.2K
70/11/17	10 12		40K	10K	40K	14	55	1.3
71/02/09	09 40							0.2K
71/05/10	19 45							0.2K

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118010 JP-10
25 49 30.0 080 59 45.0
TAMIAI CANAL, BRIDGE #105
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

77777777
0000 FEET DEPTH

DESCRIPTION

TAMIAI CANAL AT BRIDGE #105, 7.5 MILES EAST OF MONROE STATION.
HEADWATERS OF GUM SLOUGH. BIG CYPRESS SWAMP STUDY STATION #30.
COLLECT WATER SAMPLE FROM CANAL AT NE CORNER OF BRIDGE NEAR USGS GAGE.

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118010 JP-10
25 49 30.0 080 59 45.0
TAMIAI CANAL, BRIDGE #105
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CONDUCTIVITY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKSN JU	00080 COLOR PT-CO UNITS	00410 T ALK CACO3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C C MG/L
70/05/12	18	10	0.5	24.0	7.1	290	9	1.7	28	197	SK	35
70/05/13	11	00	1.1	25.0	6.6	286	10	2.0	32	204	SK	19
70/05/14	10	05	0.5	24.5	6.7	350	10	2.0	24	204	SK	19
70/06/16	09	38	1.4	27.5	6.8	250	7	2.6	32	141	5	22
70/06/17	07	05	0.8	27.0	7.6	242	7	2.3	34	147	SK	14
70/06/18	10	10	1.1	26.5	7.7	310	8	1.3	38	154	SK	30
70/07/14	08	15	1.5	28.5	8.3	168	3	1.3	26	88	SK	8
70/07/15	09	45	2.0	30.0	7.6	176	3	1.0	32	92	SK	7
70/07/16	08	40	2.0	30.0	7.9	164	3	1.3	31	103	SK	8
70/08/25	08	50	1.2	28.5	7.8	234	9	3.0	21	94	10	11
70/08/26	10	55	2.0	29.0	7.8	219	10	7.0	25	96	9	12
70/08/27	05	30	1.5	29.0	8.1	248	10	2.0	21	93	10	11
70/09/22	09	00	1.0	26.5	7.4	708	153	1.0	17	108	5	7
70/09/23	10	00	1.9	24.0	8.0	209	10	1.0	23		6	6
70/09/24	05	12	1.9	24.0	6.2	268	18	2.0	20		6	9
70/10/13	09	45	1.2	26.5	8.3	248	10	1.0	24		9	9
70/10/14	09	03	0.6	26.5	8.4	256	11	2.0	24	115	9	10
70/10/15	06	05	0.3	26.5	7.9	253	10	1.0	24	105	9	11
70/11/17	08	40	1.2	18.5	7.1	313	18	3.0	25	117	10	11
70/11/18	08	20	1.2	18.5	7.3	311	18	1.0	21	140	10	11
70/11/19	05	07	2.0	19.0	7.3	317	18	5.0	22	146	10	10
71/02/09	08	00	0.5	16.0	7.9	286	21	8.0	20	116	SK	9
71/02/10	08	45	7.4	11.0	8.0	252	21	17.0	24	94	SK	8
71/02/11	07	00	9.6	10.0	8.0	252	23	7.0	23	100	SK	SK
71/05/10	17	15		30.0	8.0	491		20.0	60		SK	SK
71/05/11	14	05		33.0	8.6	511		29.0	40		SK	SK
71/05/12	09	00		25.0	6.6	510		14.0	45		6	

STORET RETRIEVAL DATE 71/10/20

132<

JETPORT STUDY

118010 JP-10
25 49 30.0 080 59 45.0
TAMIAHI CANAL, BRIDGE #105
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	TOT MG/L	KJEL N	ORTHOP PO4 MG/L	PHOS-T P-WET MG/L	PHOS-D P-WET MG/L	PHOS-D ORTHO MG/L-P	TOT HARD CACO3 MG/L	ZINC ZN-DISS UG/L	CADMIUM CO-DISS UG/L	ARSENIC AS-DISS UG/L	BORON B-DISS UG/L
70/05/12	18 10		00625	3	0.150	0.312	0.160	0.139	174	44	20K	50K	68
70/05/13	11 00		1	1	0.101	0.185	0.162	0.101	190				
70/05/14	10 05		1	1	0.092	0.170	0.081	0.075	192				
70/06/16	09 38		1	1	0.034	0.047	0.044	0.038	137				
70/06/17	07 05		1	1	0.035	0.044	0.055	0.036	122				
70/06/18	10 10		1	1	0.008	0.044	0.033	0.021	140	620	20K	50K	64
70/07/14	08 15		1	1	0.005K	0.008	0.005	0.005K	85				
70/07/15	09 45		1	1	0.005K	0.008	0.005K	0.005K	92				
70/07/16	08 40		1	1	0.005	0.008	0.005K	0.005K	94	20K	20K	50K	22
70/08/25	08 50		1	1	0.008	0.016	0.005K	0.005K	90				
70/08/26	10 55		1	1	0.017	0.040	0.005	0.005K	78				
70/08/27	05 30		1	1	0.005K	0.030	0.006	0.005K	95	20K	20K	50K	28
70/09/22	09 00		1	1	0.007	0.033	0.005	0.005K	85				
70/09/23	10 00		1	1	0.005K	0.019	0.006	0.005K	94	20K	20K	50K	11
70/09/24	05 12		1	1	0.007	0.012	1.340	1.250	94				
70/10/13	09 45		1	1	0.005K	0.008	0.005K	0.005K	116				
70/10/14	09 03		1	1	0.019	0.021	0.007	0.005K	106				
70/10/15	06 05		1	1	0.016	0.024	0.005K	0.005K	110	20K	20K	50K	58
70/11/17	08 40		1	1	0.020	0.024	0.024	0.013	133				
70/11/18	08 20		1	1	0.030	0.030	0.020	0.010	130	20K	20K	50K	66
70/11/19	05 07		1	1	0.035	0.052	0.018	0.010	141				
71/02/09	08 00		1	1	0.012	0.040	0.012	0.005K	100				
71/02/10	08 45		1	1	0.039	0.057	0.044	0.031	92				
71/02/11	07 00		0.5	0.5	0.029	0.045	0.044	0.020	84				

STOKET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118010 JP-10
25 49 30.0 080 59 45.0
TAMIAI CANAL, BRIDGE #105
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01045 IRON TOTAL UG/L	01055 MANGNESE MN UG/L	00916 CALCIUM CA-TOT MG/L	00927 MGNSIUM MG, TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA, TOT MG/L	00937 PTSSIUM K, TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 NO2&NO3 N MG/L
70/05/12	18	10	60	10K	15	2.1		12.0	1.8	176	2.30	0.005K
70/05/13	11	00	10K	10K	22	2.3		13.0	2.0	235	0.89	0.005K
70/05/14	10	05	30	10	24	2.4		13.0	2.5	160	0.77	0.005K
70/06/16	09	38	10K	10K	27	1.5		8.5	1.6	196	0.16	0.021
70/06/17	07	05	40	10	34	1.7		8.7	1.1	212	0.26	0.005K
70/06/18	10	10	10	10K	30	1.8		8.8	0.7	189	0.21	0.005K
70/07/14	08	15	40	210	30	1.1		4.0	1.8	121	0.10	0.052
70/07/15	09	45	40	40	36	1.2		4.4	0.5	126	0.07	0.005K
70/07/16	08	40	50	20	36	1.2		4.6	0.5	113	0.17	0.005K
70/08/25	08	50	60	250	35	1.3		6.3	1.8	149	0.09	0.010
70/08/26	10	55	40	50	33	1.2		6.2	0.5	136	0.09	0.040
70/08/27	05	30	40	130	33	1.4		6.2	0.8	132	0.11	0.050
70/09/22	09	00	60	50	36	1.5		6.8	0.9	315	0.42	0.010
70/09/23	10	00	10K	10K	42	1.7		6.3	1.0	126	0.46	0.010
70/09/24	05	12	30	250	35	1.3	1.1	6.0	0.8	193	0.26	0.020
70/10/13	09	45	10	30	54	1.7	1.1	7.1	2.5	151	0.07	0.030
70/10/14	09	03	10K	10K	50	1.8	1.2	7.3	0.7	147	0.19	0.030
70/10/15	06	05	30	430	52	1.5		7.2	0.7	151	0.13	0.030
70/11/17	08	40	10	10K	66	2.5		11.0	1.6	192	0.14	0.010
70/11/18	08	20	30	80	51	2.1		10.0	0.8	189	0.17	0.020
70/11/19	05	07	40	30	52	2.3		10.0	1.0	203	0.18	4.000
71/02/09	08	00	90	100	38	3.6	0.5	15.0	1.7	205	0.27	0.020
71/02/10	08	45	60	30	35	3.6	0.1	16.0	1.2	147	0.10	0.020
71/02/11	07	00	50	40	35	3.7	0.0	17.0	1.4	147	0.21	0.020
71/05/10	17	15					0.9			312		
71/05/11	14	05					0.2			300		
71/05/12	09	00					1.3			254		

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118010 JP-10
25 49 30.0 080 59 45.0
TAMIAI CANAL. BRIDGE #105
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	PHOS-T P-SPEC UG/L	01070	IRON TOTAL UG/L	01045	01060	01055	ALUMINUM AL, TOT UG/L	01105	BERYLLIUM BE, DISS UG/L	01010	COPPER CU-DISS UG/L	01040	SILVER AG, DISS UG/L	01075	NICKEL NI, DISS UG/L	01065	COBALT CO, DISS UG/L	01035
70/05/12	18 10		100K		60	40K	40K	10.0K	92	0.20K	60	2.0K	20K	20K	20K	20K	20K	20K	20K	20K
70/05/13	11 00				10K			10.0K												
70/05/14	10 05				30			10.0												
70/05/82																				
70/06/16	09 38				10K			10.0K												
70/06/17	07 05				40			10.0												
70/06/18	10 10		100K		10	40K		10.0K	40K	0.20K	10K	2.0K	20K	20K	20K	20K	20K	20K	20K	20K
70/07/14	08 15				40			210.0												
70/07/15	09 45				40			40.0												
70/07/16	08 40		100K		50	40K		20.0	40K	0.20K	10K	2.0K	20K	20K	20K	20K	20K	20K	20K	20K
70/08/25	08 50				60			250.0												
70/08/26	10 55				40			50.0												
70/08/27	05 30		100K		40	40K		130.0	40K	0.20K	10K	2.0K	20K	20K	20K	20K	20K	20K	20K	20K
70/09/22	09 00				60			50.0												
70/09/23	10 00		100K		10K	40K		10.0K	40K	0.20K	10K	2.0K	20K	20K	20K	20K	20K	20K	20K	20K
70/09/24	05 12				30			250.0												
70/10/13	09 45				10			30.0												
70/10/14	09 03				10K			10.0K												
70/10/15	06 05		100K		30	40K		430.0	40K	0.20K	10K	10.0K	20K	20K	20K	20K	20K	20K	20K	20K
70/11/17	08 40		100K		10	40K		10.0K												
70/11/18	08 20				30			80.0												
70/11/19	05 07				40			30.0												
71/02/09	08 00				90			100.0												
71/02/10	08 45				60			30.0												
71/02/11	07 00				50			40.0												

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118010 JP-10
25 49 30.0 080 59 45.0
TAMiami CANAL, BRIDGE #105
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
0

77777777
0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01049 LEAD PB,DISS UG/L	01030 CHROMIUM CR,DISS UG/L	01085 VANADIUM V,DISS UG/L	01005 BARIUM BA,DISS UG/L	01080 STRONTIUM SR,DISS UG/L	71900 MERCURY HG,TOTAL UG/L
70/05/12	18	10	60	10K	40K	38	165	2.9
70/05/82			60	10K	40K	38	165	
70/06/18	10	10	125	10K	40K	12	26	1.0
70/07/16	08	40	40K	10K	40K	3	6	0.3
70/08/27	05	30	40K	10K	40K	2K	3	0.2K
70/09/23	10	00	40K	10K	40K	2K	2	0.2K
70/10/15	06	05	40K	10K	40K	6	50	0.2K
70/11/17	08	40	40K	10K	40K	9	155	1.4
71/02/09	08	00						0.2K
71/05/10	17	15						0.2K

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118011 JP-11
25 45 50.0 081 04 30.0
GUM SLOUGH, LOOP ROAD
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

77777777
0000 FEET DEPTH

DESCRIPTION

GUM SLOUGH CROSSING OF LOOP ROAD AT FIRST BEND IN ROAD APPROXIMATELY
SIX MILES SOUTH OF TAMiami TRAIL (U.S. 41). COLLECT WATER SAMPLE IN
SLOUGH AT NE CORNER OF BRIDGE.

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118011 JP-11
25 45 50.0 081 04 30.0
GUM SLOUGH, LOOP ROAD
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

DATE FROM TO		TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00095 CONDUCTIVITY AT 25C MICROMHO	00940 CHLORIDE CL MG/L	00070 TURB JKSJ JU	00080 COLOR PT-CO UNITS	00410 T ALK CACO3 MG/L	00945 SULFATE SO4 MG/L	00680 T ORG C MG/L
70/05/12	12	40		0.6	24.0	7.0	260	8	2.0	25	159		15
70/05/13	12	30		1.3		6.8	259	16	2.3	38	173		13
70/05/14	09	00		0.8	24.5	6.7	295	8	5.0	21	178		13
70/06/16	09	10		2.8	25.0	6.8	299	7	2.3	40	168		13
70/06/17	11	15		2.3	27.0	7.6		7	2.3	32	181		32
70/06/18	08	15		2.2	25.5	8.0	290	7	3.0	37	179		14
70/07/14	07	45		2.6	28.5	8.1	180	4	1.3	34	119		9
70/07/15	10	48		2.9	29.0	7.4	193	5	1.3	40	145		8
70/07/16	08	15		2.4	29.0	8.1	253	5	1.3	30	140		10
70/08/25	08	00		3.1	27.5	7.8	260	11	5.0	21	105		11
70/08/26	10	12		2.9	28.0	7.7	239	11	34.0	20	112		10
70/08/27	08	50		2.8	28.0	7.0	270	12	1.0	35	105		10
70/09/22	11	40		2.9	26.0	7.4	263	22	2.0	19	158		12
70/09/23	09	10			24.0	7.4	320	20	2.0	27	150		10
	14	00		5.9	26.0	7.5							8
70/09/24	08	45		1.4	27.0	7.5	512	12	1.0K	20	127		7
70/10/13	13	25		3.9	27.0	8.4	267	8	1.0K	24	109		10
70/10/14	10	00		3.3	26.5	8.0	244	9	2.0	24	128		8
70/10/15	05	40		1.4	26.0	7.5	282	8	1.0	19	173		11
70/11/17	08	14		0.8	17.0	7.3	376	15	1.0K	22	191		10
70/11/18	09	35		2.8	15.0	7.1	470	41	2.0	21	168		8
70/11/19	07	00		1.1	16.0	7.1	388	20	50.0	22	116		7
71/02/09	08	05		1.6	18.0	7.7	420	14	49.0	17	164		6
71/02/10	08	30		3.8	12.0	7.8	401	12	22.0	16	157		5K
71/02/11	10	05		4.7	11.0	7.6	403	12		19			5K

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118011 JP-11
25 45 50.0 081 04 30.0
GUM SLOUGH, LOOP ROAD
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050
0

DATE FROM TO		TIME OF DAY	DEPTH FEET	00625 TOT KJEL N		00660 ORTHOP04 P04 MG/L	00665 PHOS-T P-WET MG/L	00666 PHOS-D P-WET MG/L	00671 PHOS-D ORTHO MG/L-P	00900 TOT HARD CAC03 MG/L		01090 ZINC ZN-DISS UG/L		01025 CADMIUM CD-DISS UG/L		01000 ARSENIC AS-DISS UG/L		01020 BORON B-DISS UG/L	
70/05/12	12	40		1		0.082	0.095	0.079	0.069	170		30		20K		100K		44	
70/05/13	12	30		1		0.070	0.135	0.090	0.055	164									
70/05/14	09	00		1		0.100	0.119	0.121	0.090	164									
70/06/16	09	10		0.4		0.018	0.026	0.019	0.012	153									
70/06/17	11	15		1		0.008	0.017	0.013	0.005	176									
70/06/18	08	15		0.4		0.011	0.015	0.014	0.005K	157		20		20K		50K		44	
70/07/14	07	45		1		0.005K	0.005	0.005	0.005	140									
70/07/15	10	48		1		0.005K	0.005K	0.005K	0.005K	134		20K		20K		50K		46	
70/07/16	08	15		1		0.005	0.006			131									
70/08/25	08	00		0.4		0.005K	0.026	0.010	0.005K	89									
70/08/26	10	12		0.4		0.005K	0.024	0.008	0.005K	84									
70/08/27	08	50		0.5		0.630	0.540	0.580	0.575	20									
70/09/22	11	40		1		0.010	0.025	0.006	0.005K	92									
70/09/23	09	10		1		0.005K	0.018	0.025	0.005K	107		20K		20K		50K		10K	
70/09/24	08	45		1		0.005K	0.006	0.006	0.005K	103									
70/10/13	13	25		1		0.005K	0.009	0.005K	0.005K	128									
70/10/14	10	00		1		0.005	0.008	0.005K	0.005K	110									
70/10/15	05	40		1		0.005	0.005	0.005	0.005K	124									
70/11/17	08	14		1		0.107	0.137	0.050	0.048	150		20K		20K		50K		42	
70/11/18	09	35		1		0.005K	0.011	0.011	0.005K	192		20K		20K		50K		76	
70/11/19	07	00		1		0.062	0.064	0.026	0.015	160									
71/02/09	08	05		1		0.048	0.085	0.027	0.016	112									
71/02/10	08	30		0.4		0.025	0.033	0.024	0.019	160									
71/02/11	10	05		0.4		0.017	0.025	0.022	0.012	136									

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118011 JP-11
25 45 50.0 081 04 30.0
GUM SLOUGH, LOOP ROAD
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050
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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01045 IRON TOTAL UG/L	01055 MANGNESE MN UG/L	00916 CALCIUM CA-TOT MG/L	00927 MGNSIUM MG-TOT MG/L	00405 CO2 MG/L	00929 SODIUM NA,TOT MG/L	00937 PTSSIUM K,TOT MG/L	00515 RESIDUE DISS-105 C MG/L	00610 AMMONIA NH3-N MG/L	00630 NO2&NO3 N MG/L
70/05/12	12	40	10	10K	28	2.0		11.0	1.2	190	0.55	0.070
70/05/13	12	30	20	10	23	2.1		11.0	1.1	191	0.33	0.005K
70/05/14	09	00	10K	10K	28	1.7		8.5	0.7	209	0.65	0.080
70/06/16	09	10								204	0.09	0.005K
70/06/17	11	15								344	0.10	0.005K
70/06/18	08	15	20	50	40	1.9		8.8	1.0	187	0.16	0.005K
70/07/14	07	45	50	270	43	1.4		5.9	2.1	148	0.04	0.325
70/07/15	10	48	20	20	48	1.6		6.8	0.6	136	0.20	0.005K
70/07/16	08	15	40	420	48	1.6		7.1	1.9	117	0.67	0.005K
70/08/25	08	00	30	170	37	1.3		7.1	1.7	160	0.08	0.020
70/08/26	10	12	10	30	39	1.5		8.0	0.5	142	0.05	0.010
70/08/27	08	50	10K	20	39	1.6		8.5	1.3	152	0.04	0.010
70/09/22	11	40	100	70	50	1.9		8.6		153	0.26	0.006
70/09/23	09	10	10K	10K	55	1.8		8.3		194	0.06	0.005
70/09/24	08	45	20	10K	37	1.5		8.1	0.8	313	0.18	0.010
70/10/13	13	25	50	30	63	1.6	0.8	6.6	1.4	158	0.21	0.020
70/10/14	10	00	10K	470	51	1.5	0.4	7.3	4.2	143	0.03	0.005
70/10/15	05	40	60	250	58	1.5	1.2	6.4	2.0	159	0.05	0.005K
70/11/17	08	14	10	10K	80	2.1		10.0	0.9	201	1.00	0.030
70/11/18	09	35	30	40	65	3.1		17.0	2.6	268	0.17	0.020
70/11/19	07	00	100	10K	80	1.9		9.2		234	0.50	0.060
71/02/09	08	05	100	70	80	2.3	0.6	10.0	8.7	302	0.22	8.810
71/02/10	08	30	90	80	76	2.4	0.3	10.0	1.1	233	0.14	0.050
71/02/11	10	05					0.3			236	0.14	0.010K

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

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25 45 50.0 081 04 30.0
GUM SLOUGH, LOOP ROAD
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SOUTHEAST
LOWER FLA
11135050
0

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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01070 PHOS-T P-SPEC UG/L	01045 IRON TOTAL UG/L	01060 MOLY MO-DISS UG/L	01055 MANGNESE MN UG/L	01105 ALUMINUM AL,TOT UG/L	01010 BERYLIUM BE-DISS UG/L	01040 COPPER CU-DISS UG/L	01075 SILVER AG-DISS UG/L	01065 NICKEL NI-DISS UG/L	01035 COBALT CO-DISS UG/L
70/05/12	12 40		100K		40K		260	0.20K	10K	2.0K	20K	20K
70/05/13	12 30			10		10.0K						
70/05/14	09 00			20		10.0						
70/06/16	09 10			10K		10.0K						
70/06/18	08 15		100K	20	40K	50.0	52	0.20K	10K	2.0K	20K	20K
70/07/14	07 45			50		270.0						
70/07/15	10 48			20	40K	20.0	40K	0.20K	10K	2.0K	20K	20K
70/07/16	08 15		100K	40		420.0						
70/08/25	08 00			30		170.0						
70/08/26	10 12			10		30.0						
70/08/27	08 50			10K		20.0						
70/09/22	11 40			100		70.0						
70/09/23	09 10		100K	10K	40K	10.0K	40K	0.20K	10K	2.0K	20K	20K
70/09/24	08 45			20		10.0K						
70/10/13	13 25			50		30.0						
70/10/14	10 00			10K		470.0						
70/10/15	05 40		100K	60	40K	250.0	46	0.20K	10K	10.0K	20K	20K
70/11/17	08 14		100K	10	40K	10.0K	84	0.20K	10K	10.0K	20K	20K
70/11/18	09 35			30		40.0						
70/11/19	07 00			100		10.0K						
71/02/09	08 05			100		70.0						
71/02/10	08 30			90		80.0						

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118011 JP-11
25 45 50.0 081 04 30.0
GUM SLOUGH, LOOP ROAD
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LOWER FLA
11135050
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0000 FEET DEPTH

DATE FROM TO	TIME OF DAY	DEPTH FEET	01049 LEAD PB,DISS UG/L	01030 CHROMIUM CR,DISS UG/L	01085 VANADIUM V,DISS UG/L	01005 BARIUM BA,DISS UG/L	01080 STRONTIUM SR,DISS UG/L	71900 MERCURY HG,TOTAL UG/L
70/05/12	12	40	40K	10K	19	45	18	0.8
70/06/18	08	15	40K	10K	40K	2K	3	1.0
70/07/16	08	15	40K	10K	40K	2K	2	0.2K
70/09/23	09	10	40K	10K	40K	5	44	0.7
70/10/15	05	40	40K	10K	40K	8	60	0.2K
70/11/17	08	14	40K	10K	40K	9		1.5
71/02/09	08	05	40K	10K	40K			0.2

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118003-0

JP-030

TAMIAI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050

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STORET RETRIEVAL DATE 7/1/10/20

118003-0

JP-030

TAMIAMI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050

JETPORT STUDY

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DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L
70/05/13	11 30		2.1	24.5	6.8	143		183
	13 20		3.5	25.5	6.7	137		130
	16 15		3.2	26.5	6.8	125		175
	18 15		1.9	26.0	6.8	121		179
	20 40		0.7	24.0	7.1	139		188
	22 35		0.0	24.5	7.1	143		175
70/05/14	00 30		0.0	24.0	7.0	139		174
	02 30		0.0	22.0	7.1	166		177
	04 35		1.0	21.5	7.1	174		124
	06 25		0.8	20.5	7.2	184		121
	09 50		1.0	24.5	7.0	139		128
70/06/16	09 51		0.2	27.5	7.0	122		73
	11 40		0.4	27.5	7.5	116		76
	13 53		1.0	29.0	6.9	118		80
	17 05		0.6	28.5	7.5	116		74
	19 05		0.5	28.5	7.7	120		78
	21 05		0.1	28.0	7.8	122		73
	23 05		0.0	28.0	8.0	116		71
70/06/17	07 15		0.0	26.5	7.5	124		78
	09 55		0.3	27.5	7.4	128		80
70/07/14	08 25		3.7	30.0	8.4	73		76
	10 13		3.7	30.0	8.2	80		74
	13 03		3.3	31.0	7.9	76		113
	15 00		4.3	31.5	7.8	74		121
	16 52		4.8	34.0	8.1	78		114
	19 20		5.8	32.5	8.2	73		119
	21 25		8.0	33.0	8.4	76		117
70/07/15	23 13		7.1	32.0	8.4	71		115
	01 23		6.2	31.5	8.4	78		116
	03 20		5.2	31.0	8.2	80		113
	06 20		3.8	30.0	8.1	77		109
	09 30		3.5	30.0	7.7	73		94
70/08/25	09 00		2.5	29.0	7.8	77		103
	11 12		3.2	29.5	7.0	76		96
	13 10		4.2	30.0	6.9	76		95
	15 10		5.0	30.5	7.5	74		92
	17 10		4.0	30.0	7.8	76		96
	19 10		3.7	29.5	8.2	74		103
	21 10		3.4	29.5	8.4	74		

STORET RETRIEVAL DATE 71/10/20

118003-D

JP-030

TAMIAMI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050

JETPORT STUDY

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DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L
70/08/25	23 10		3.1	29.5	8.0	76		85
70/08/26	01 10		3.2	29.5	7.9	70		98
70/08/27	05 40		2.6	29.5	8.2	78		101
70/09/22	09 10		1.5	26.5	7.0	99		132
	11 10		2.4	27.5	7.4	106		137
	13 10		2.4	25.0	7.4			
	14 50		3.5	26.0	7.1			
70/09/23	21 25		5.0	26.0	7.2	85		142
70/09/24	05 23		1.9	25.0	7.2			152
70/10/13	10 02		1.0	26.5	7.4			866
	12 45		3.3	27.0			1.9	
	14 50		5.4	28.5			0.6	
	16 45		6.5	29.0			0.4	
	18 45		7.9	28.5			0.4	
	21 10		4.0	27.5			0.4	
	23 05		4.0	27.5			0.5	
70/10/14	01 05		3.0	27.0			1.1	
	03 05		2.4	27.0			0.9	
	05 05		2.0	26.5			0.9	
	07 30		1.5	26.0			0.9	
	08 50		1.8	26.5			1.2	
70/11/17	08 53		6.0	19.0			1.0	
70/11/18	08 32		6.7	18.5	7.6			
	10 55		7.2	19.0	7.7			
	13 03		8.6	20.5	7.5			
	15 00		9.2	21.5	7.6			
	17 05		8.8	21.0	7.4			
	18 00		7.9	20.0	7.2			
71/02/09	08 20		2.2	16.0	7.6			
	11 50		8.5	17.0	7.9		0.5	
	13 30		12.0	18.0	7.8		0.1	
	15 35		17.0	18.0	8.1		0.0	
	17 35		16.1	17.0	8.3		0.0	
	21 40		11.3	16.0	8.1		0.0	
	23 45		9.8	14.0	7.9		0.0	
71/02/10	01 45		8.7	15.0	7.8		0.1	
	03 45		6.9	15.0	7.9		0.2	
	09 00		6.1	13.0	7.8		0.2	
71/02/11	07 13		8.4	11.0	7.6		0.2	
					7.5		0.3	

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118003-D JP-03D
TAMIAMI CANAL AT BRIDGE #112.
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050 77777777

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L
71/05/11	14 20		6.1	29.0				
	17 15			29.0			0.1	
	22 00			25.0			0.0	
71/05/12	04 25		0.0	24.0				
	08 45		0.8	23.0			0.8	1.1

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118007-D

JP-07D

CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050

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STORET RETRIEVAL DATE 71/10/20

JP-07D

118007-D

CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050

JETPORT STUDY

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DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L	
70/05/13	12 15		6.3	27.0	6.9	178			
	14 00		7.1	28.5	6.8	174			
	15 30		7.7	28.5	6.8	178			
	17 30		7.7	29.0	7.1	170			
	19 15		7.6	26.5	7.2	178			
70/05/14	21 30		7.0	27.0	7.2	168			
	23 30		6.7	25.5	7.2	163			
	01 30		6.9	25.0	7.2	164			
	03 30		6.0	24.5	7.4	168			
	05 30		5.4	25.0	7.3	176			
70/06/16	07 30		4.3	25.0	7.3	174			
	09 05		4.4	26.5	7.2	176			
	16 15		4.0	30.0	7.7	162			214
	18 15		4.3	30.0	6.9	151			212
	20 15		4.1	28.5	7.7	147			212
70/06/17	22 15		3.1	29.0	7.7	155			206
	00 15		2.9	28.5	7.8	158			203
	02 15		2.7	28.5	7.8	158			210
	04 25		2.5	28.5	7.9	151			218
	06 15		2.3	28.0	7.8	158			
70/07/14	08 10		2.4	28.5	7.8	155			
	09 25		2.4	29.0	7.5	158			
	09 20		4.4	30.0					155
	11 15		4.5	30.5	7.6	115			164
	13 50		4.8	31.5	7.7	112			152
70/07/15	15 50		4.9	32.0	7.7	119			153
	17 50		4.9	32.0	7.7	117			148
	20 00		4.9	31.0	8.0	115			155
	22 10		4.4	30.5	8.1	112			149
	00 10		4.3	30.5	8.1	110			163
70/08/25	02 20		4.0	30.0	8.0	113			153
	04 20		4.0	30.0	8.1	110			145
	07 15		4.2	30.0	7.9	117			151
	08 25		3.9	30.0	7.8	120			150
	09 35		2.4	30.0	6.9	108			142
70/08/25	11 43		2.8	30.0	6.8	108			122
	13 38		3.6	31.0	7.1	108			123
	15 35		3.9	30.5	7.8	110			135
	17 40		3.6	29.5	6.5	107			

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118007-D JP-07D
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
1113S050 77777777

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L
70/08/25	19 40		3.6	29.5	7.5	104		148
	21 40		3.2	29.5	7.8	104		142
	23 40		3.0	29.5	8.5	107		147
70/08/26	01 50		2.9	29.5	7.9	104		165
70/08/27	06 20		3.0	29.0	8.1	104		177
70/09/22	09 00		2.1	25.0	6.7	152		204
	11 35		2.3	28.5	7.4	150		195
	13 45		3.7	27.0	6.9	145		177
	15 45		4.2	28.0	7.0	143		141
70/09/23	20 45		2.4	26.0	7.7			166
70/09/24	05 54		1.9	25.0	6.8			212
70/10/13	10 37		2.4	27.5				
	14 20		3.8	30.0				
	15 40		4.4	30.0				
	17 25		4.7	30.0				
	19 25		4.4	28.0				
	21 50		3.1	27.5				
	23 45		2.9	27.5				
70/10/14	01 45		2.4	27.0				
	03 40		2.2	27.0				
	05 45		2.8	27.0				
	08 00		2.2	27.0				
70/11/17	09 22		3.6	20.5				
70/11/18	09 00		3.5	20.0				
	11 25		4.0	21.0				
	13 35		4.5	22.5				
	15 30		5.3	23.0				
	17 35		4.9	22.0				
	18 30		4.5	21.5				
71/02/09	09 05		7.3	16.0				
	12 30		7.8	17.5				
	14 25		8.5	18.0				
	16 10		8.5	18.0				
	18 10		8.4	18.0				
	22 10		7.9	18.0				
71/02/10	00 05		8.0	16.0				
	02 05		7.7	17.0				
	04 05		7.6	17.0				
	10 10		7.8	15.0				

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JETPORT STUDY

118007-D JP-07D
CANAL ON W SIDE LEVEE L-28
12 FLORIDA
SOUTHEAST
LOWER FLA
11135050 77777777

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L
71/05/11	15 10		8.4	30.0	7.9		0.2	
	16 35		8.4	30.0	7.9		0.2	
71/05/12	05 00		7.4	27.0	6.2		0.2	
	06 50		7.0	27.0	7.9		0.3	

STORET RETRIEVAL DATE 71/10/20

JETPORT STUDY

118010-0

JP-10D

TAMIAI CANAL, BRIDGE #105
FLORIDA
SOUTHEAST
LOWER FLA
1113S050

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STORET RETRIEVAL DATE 71/10/20

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118010-D

TAMIAI CANAL, BRIDGE #105
FLORIDA
SOUTHEAST
LOWER FLA
1113S050

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JETPORT STUDY

DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L
70/05/13	11 00		1.1	25.0	6.6	200		191
	13 00		2.4	25.5	6.6	194		182
	16 10		2.1	25.5	6.7	180		163
	18 05		1.1	25.0	6.6	180		272
	20 20		0.3	24.5	6.8	157		154
70/05/14	22 15		0.0	24.0	6.9	184		170
	00 05		0.0	24.0	7.1	184		174
	02 10		0.0	23.5	7.0	190		178
	04 20		0.0	23.5	7.1	198		169
	06 10		0.0	23.0	7.1	202		170
70/06/16	10 05		0.5	24.5	6.7	200		23
	09 38		1.4	27.5	6.8	141		115
	11 25		1.5	28.5	7.2	130		43
	13 37		4.1	30.0	7.0	126		119
	16 50		3.8	29.5	7.4	139		117
70/06/17	18 53		3.9	29.5	7.8	132		111
	20 50		3.3	29.0	7.8	139		115
	23 00		2.5	28.0	7.8	135		111
	00 52		1.8	27.5	7.8	137		111
	03 00		1.5	27.5	7.8	135		117
70/07/14	07 05		0.8	27.0	7.6	147		133
	10 04		1.4	28.5	7.5	143		125
	08 15		1.5	28.5	8.3	89		130
	10 03		2.3	30.0	8.2	89		127
	12 50		4.3	31.0	7.9	92		128
70/07/15	14 47		5.5	33.0	7.7	94		103
	16 40		6.9	33.5	7.9	92		96
	19 08		6.8	33.5	8.0	96		96
	21 05		6.8	33.0	8.2	96		97
	23 05		5.3	31.5	8.2	96		97
70/08/25	01 10		5.0	32.0	8.2	96		103
	03 10		4.0	31.0	8.1	97		92
	06 10		3.3	30.0	7.8	103		94
	09 45		2.0	30.0	7.6	92		88
	11 02		1.2	28.5	7.8	94		96
70/08/25	13 00		2.0	29.5	6.9	88		127
	15 00		3.3	30.0	6.8	96		128
	17 00		4.3	31.0	7.5	88		103
			4.6	31.0	7.8	96		

STORET RETRIEVAL DATE 71/10/20

JEIPOINT STUDY

152<

118010-D

JP-100

TAMIAMI CANAL, BRIDGE #105
FLORIDA
SOUTHEAST
LOWER FLA
11135050

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DATE FROM TO	TIME OF DAY	DEPTH FEET	00300 DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CACO3 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 MG/L
70/08/25	19 00	21 00	4.1	30.5	7.9	94		116
	21 00		3.8	30.0	8.0	88		124
	23 00		3.0	30.0	8.0	85		113
70/08/26	01 00		1.5	29.5	7.9	88		108
70/08/27	05 30		1.5	29.0	8.1	93		128
70/09/22	09 00		1.0	26.5	7.4	108		144
	11 00		2.1	27.0	7.4	116		148
	13 00		3.6	26.0	6.8	114		
	14 40		4.9	27.0	7.1	110		220
70/09/23	21 45		3.9	26.0	7.0			149
70/09/24	05 12		1.9	24.0	6.2			196
70/10/13	09 45		1.2	26.5			1.1	
	12 55		3.9	27.5			0.7	
	15 10		3.6	27.5			0.4	
	16 55		4.2	28.0			0.4	
	18 55		4.2	27.5			0.4	
	20 55		5.0	28.0			0.8	
70/10/14	22 55		4.0	27.5			0.9	
	00 55		2.8	27.5			1.1	
	02 55		1.6	27.0			1.0	
	04 55		0.6	26.5			1.3	
	07 20		0.3	26.5			1.2	
	09 03		0.6	26.5			1.1	
70/11/17	08 40		1.2	18.5	7.1			
70/11/18	08 20		1.2	18.5	7.3			
	10 47		3.6	20.0	7.2			
	12 50		5.5	21.0	7.4			
	14 45		6.7	22.0	7.4			
	16 50		7.3	21.5	7.4			
	17 50		6.3	20.5	7.4			
71/02/09	08 00		0.4	16.0	7.9			
	11 35		6.1	14.0	8.1		0.5	
	13 15		7.7	15.0	8.1		0.2	
	15 25		9.9	15.0	8.5		0.1	
	17 30		11.5	15.0	8.5		0.0	
	21 30		10.7	16.0	8.0		0.0	
	23 30		8.6	16.0	7.9		0.0	
	01 30		6.8	16.0	7.9		0.0	
71/02/10	03 30		5.8	16.0	7.9		0.1	

STOKET RETRIEVAL DATE 71/10/20

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JETPORT STUDY

118010-0

JP-100

TAMIAMI CANAL, BRIDGE #105
FLORIDA
SOUTHEAST
LOWER FLA
11135050
77777777

DATE FROM TO	TIME OF DAY	DEPTH FEET	DO MG/L	00010 WATER TEMP CENT	00400 PH SU	00410 T ALK CAC03 MG/L	00405 CO2 MG/L	00515 RESIDUE DISS-105 C MG/L
71/02/10	08 45		7.4	11.0	8.0		0.1	
71/02/11	07 00		9.6	10.0	8.0		0.0	
71/05/11	14 05			33.0	8.6		0.2	
	17 30						1.0	
	22 15			26.0	6.6		2.0L	
71/05/12	04 10		0.0	25.0	6.0		2.4	
	09 00			25.0	6.6		1.3	

Appendix C
BIOLOGICAL DATA

Table C-1

DRY AND ASH-FREE DRY WEIGHT (g/m²) AND PERCENTAGE SPECIES COMPOSITION
OF PLANTS COLLECTED AT BIG CYPRESS SWAMP JETPORT STATIONS

May, 1970 - Station 1

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.					95	85		100	80		
<u>Typha</u> <u>augustifolia</u>			40								
<u>Eleocharis</u> sp.	30		60		1					95	
<u>Cladium</u> <u>jamaicensis</u>			20								
<u>Bacopa</u> sp.					3	5				5	
<u>Utricularia</u> sp.			20								
<u>Nymphaea</u> <u>odorata</u>					1						
<u>Hydrilla</u> <u>verticillata</u>				60		5					
<u>Chara</u> sp.						5					
Gramineae	70	100							20		
Total Dry Weight	615	522	252	None	609	467	493	None	None	159	158
Total Ash-Free Dry Weight	512	495	206	None	542	396	430	None	None	135	135

May, 1970 - Station 7

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Sawgrass Marsh	Sawgrass Marsh	Mean
<u>Sagittaria</u> sp.	35		30		32					
<u>Eleocharis</u> sp.	55	95	40	35	65	95			90	
<u>Bacopa</u> sp.	5		5	15	1	5		20	10	
<u>Utricularia</u> sp.		5	5		1					
<u>Sparganium</u> sp.	5		20							
Gramineae				50	1			80		
Total Dry Weight	464	534	320	410	1186	900	636	128	23	76
Total Ash-Free Dry Weight	359	391	186	283	889	588	390	87	13	50

Table C-1

DRY AND ASH-FREE DRY WEIGHT (g/m^2) AND PERCENTAGE SPECIES COMPOSITION
OF PLANTS COLLECTED AT BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

August, 1970 - Station 7

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Sawgrass Marsh	Sawgrass Marsh	Sawgrass Marsh	Sawgrass Marsh	Mean
<u>Sagittaria</u> sp.			40							
<u>Eleocharis</u> sp.		100	60	100		30	80	80	30	
<u>Cladium jamaicensis</u>						70			55	
<u>Bacopa</u> sp.							20	13	10	
<u>Utricularia</u> sp.	65									
<u>Nuphar</u> sp.								2		
Gramineae	35									
Total Dry Weight	59	380	121	123	170	332	311	572	537	438
Total Ash-Free Dry Weight	48	263	96	101	127	300	291	389	346	359

August, 1970 - Station 8

Genus	Rush Marsh	Rush Marsh	Rush Marsh	Rush Marsh	Mean	Sawgrass Marsh	Sawgrass Marsh	Sawgrass Marsh	Sawgrass Marsh	Mean
<u>Eleocharis</u> sp.	100	100	100	100		30	10	10	10	
<u>Cladium jamaicensis</u>						70	90	90	90	
Total Dry Weight	117	163	20	107	102	448	752	549	237	497
Total Ash-Free Dry Weight	104	152	18	100	94	419	720	531	225	474

August, 1970 - Station 9

Genus	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.		5			60	20	80	75	
<u>Eleocharis</u> sp.	100	95	100		20	80	20	25	
<u>Cladium jamaicensis</u>					20				
Total Dry Weight	179	249	393	257	393	367	279	361	350
Total Ash-Free Dry Weight	155	216	265	212	349	341	237	305	308

Table C-1

DRY AND ASH-FREE DRY WEIGHT (g/m^2) AND PERCENTAGE SPECIES COMPOSITION
FOR PLANTS COLLECTED AT BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

February, 1971 - Station 1

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.	50	90		100		20			
<u>Typha augustifolia</u>			95						
<u>Eleocharis</u> sp.	50	5	5			60	100	100	
<u>Bacopa</u> sp.		5							
Gramineae						20			
Total Dry Weight	192	367	1008	83	412	80	61	None	71
Total Ash-Free Dry	170	310	932	74	371	74	51	None	62

February, 1971 - Station 7

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean
<u>Eleocharis</u> sp.	100	100	80	100	
<u>Bacopa</u> sp.			20		
Total Dry Weight	113	515	27	80	184
Total Ash-Free Dry Weight	64	279	20	57	105

February, 1971 - Station 9

Genus	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.	90								
<u>Eleocharis</u> sp.		100	100		100	100	100	100	
<u>Cabomba caroliniana</u>	10								
Total Dry Weight	293	125	27	148	233	143	59	80	129
Total Ash-Free Dry Weight	239	83	24	115	198	116	51	72	110

Table C-1

DRY AND ASH-FREE DRY WEIGHT (g/m^2) AND PERCENTAGE SPECIES COMPOSITION
OF PLANTS COLLECTED AT BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

May, 1970 - Station 9

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.						50			
<u>Eleocharis</u> sp.	30	90	50			50			
<u>Utricularia</u> sp.				5					
<u>Pontederia lanceolata</u>				95					
<u>Sparganium</u> sp.								100	
<u>Hydrilla verticillata</u>	70	10	50						
Gramineae							100		
Total Dry Weight	280	604	379	367	408	139	207	208	184
Total Ash-Free Dry Weight	161	538	243	319	315	111	185	195	164

August, 1970 - Station 1

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.	55	45	10	15		40			75	
<u>Eleocharis</u> sp.			3			40	100			
<u>Bacopa</u> sp.	45	55	85	85						
<u>Nymphaea odorata</u>									100	
Gramineae						20			25	
Total Dry Weight	621	556	600	347	531	88	52	347	73	140
Total Ash-Free Dry Weight	549	448	457	252	427	79	40	187	60	91

Table C-1

DRY AND ASH-FREE DRY WEIGHT (g/m^2) AND PERCENTAGE SPECIES COMPOSITION
OF PLANTS COLLECTED AT BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

August, 1970 - Station 10

Genus	Cypress Swamp	Cypress Swamp	Cypress Swamp	Mean
<u>Eleocharis</u> sp.			50	
<u>Cladium jamaicensis</u>	100	100	50	
Total Dry Weight	133	348	300	260
Total Ash-Free Dry Weight	116	308	254	226

December, 1970 - Station 1

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.	40	90				55			50	
<u>Eleocharis</u> sp.						45	100	100	50	
<u>Bacopa</u> sp.		1		5						
<u>Hydrilla verticillata</u>	35		100	95						
<u>Chara</u> sp.	25	4								
Gramineae		5								
Total Dry Weight	600	717	382	398	362	None	None	44	40	42
Total Ash-Free Dry Weight	311	86	249	298	236	None	None	35	36	36

December, 1970 - Station 7

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Sawgrass Marsh	Sawgrass Marsh	Sawgrass Marsh	Sawgrass Marsh	Mean
<u>Sagittaria</u> sp.	90					25				
<u>Eleocharis</u> sp.		80		30		30	40	75		
<u>Cladium jamaicensis</u>						40	50	10	90	
<u>Bacopa</u> sp.		20	100	70		5	10	15	10	
Gramineae	10									
Total Dry Weight	None	454	431	493	459	1066	460	714	1131	843
Total Ash-Free Dry Weight	None	355	215	273	81	913	398	645	959	500

Table C-1

DRY AND ASH-FREE DRY WEIGHT (g/m^2) AND PERCENTAGE SPECIES COMPOSITION
OF PLANTS COLLECTED AT BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

December, 1970 - Station 8

Genus	Rush Marsh	Rush Marsh	Rush Marsh	Rush Marsh	Mean	Sawgrass Marsh	Sawgrass Marsh	Sawgrass Marsh	Mean
<u>Eleocharis</u> sp.	100	100	80	40		30	100	70	
<u>Juncus</u> sp.			20	60					
<u>Bacopa</u> sp.						70		30	
Total Dry Weight	41	43	52	None	45	72	94	224	130
Total Ash-Free Dry Weight	38	34	47	None	40	66	81	207	118

December, 1970 - Station 9

Genus	Canal Edge	Canal Edge	Canal Edge	Canal Edge	Mean	Rush Marsh	Rush Marsh	Rush Marsh	Rush Marsh	Mean
<u>Sagittaria</u> sp.		40				95	95	95	95	
<u>Eleocharis</u> sp.	100	60	20	95			2			
<u>Chara</u> sp.			80	5		5	3	5	5	
Total Dry Weight	None	261	503	524	468	478	452	224	586	435
Total Ash-Free Dry Weight	None	234	472	475	394	438	388	203	523	388

December, 1970 - Station 10

Genus	Cypress Slough	Cypress Slough	Cypress Slough	Cypress Slough	Mean
<u>Sagittaria</u> sp.				75	
<u>Bacopa</u> sp.			5		
<u>Hydrilla verticillata</u>	100	100	95	25	
Total Dry Weight	225	347	270	155	249
Total Ash-Free Dry Weight	174	271	216	138	200

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS

Phylum Porifera

Class Demospongiae

Order Haplosclerina

Family Spongillidae

Spongilla sp.

Phylum Platyhelminthes

Class Turbellaria

Order Tricladida

Family Planariidae

Phylum Nemathelminthes

Class Nematoda

Phylum Bryozoa

Class Ectoprocta

Order Phylactolaemata

Family Plumatellidae

Plumatella repens

Phylum Annelida

Class Oligochaeta

Order Prosopora

Family Lumbriculidae

Order Plesiopora

Family Naididae

Dero digitataPristina sp.Haemonais waldvogeliNais variabilisNais sp.

Unidentified sp.

Family Tubificidae

Limnodrilus hoffmeisteriAulodrilus piqueti

Class Hirudinea

Order Rhynchobdellida

Family Glossiphoniidae

Order Arhynchobdellida

Family Erpobdellidae

Phylum Arthropoda

Class Arthropoda

Order Isopoda

Family Asellidae

Asellus sp.

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS
(Continued)

- Phylum Arthropoda (Continued)
 Class Arthropoda (Continued)
 Order Amphipoda
 Family Gammaridae
 Gammarus sp.
 Family Talitridae
 Hyalella azteca
 Order Decapoda
 Family Palaemonidae
 Palaemonetes paludosus
 P. kadiakensis
 Family Astacidae
 Cambarinae
 Class Arachnoidea
 Order Hydracarina
 Class Insecta
 Order Ephemeroptera
 Family Caenidae
 Caenis diminuta
 Family Baetidae
 Callibaetis floridanus
 Order Odonata
 Family Coenagrionidae
 Enallagma sp.
 Ischnura ramburii
 Ischnura sp.
 Family Aeschnidae
 Coryphaeschna nr. ingens
 Family Gomphidae
 Gomphus sp.
 Aphylla williamsoni
 Family Libellulidae
 Libellula vibrans
 Libellula sp.
 Didymops transversa
 Macromia sp.
 Perithemis tenera/seminole
 Pachydiplax longipennis
 Erythemis simplicicollis
 Celithemis sp.
 Tetragoneuria sp.
 Epicordulia regina
 Brachymesia gravida

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
 EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS
 (Continued)

Phylum Arthropoda (Continued)

Class Insecta (Continued)

Order Hemiptera

Family Belostomatidae

Belostoma sp.Abedus sp.

Family Corixidae

Trichocorixa sp.

Undetermined sp.

Family Veliidae

Velia sp.

Family Hydrometridae

Hydrometra sp.

Family Nepidae

Ranatra sp.

Family Naucoridae

Pelocoris sp.

Order Trichoptera

Family Hydropsychidae

Hydropsyche sp.

Family Hydroptilidae

Agraylea multipunctataOxyethira sp.Mayatrichia sp.

Family Leptoceridae

Oecetis cinerascensO. nr. avaraO. eddlestoniO. nr. sp. Ross B

Family Psychomyiidae

Cyrnellus fraternus

Order Lepidoptera

Family Pyralidae

Nymphula sp.

Order Coleoptera

Family Curculionidae

Family Haliplidae

Peltodytes sp.

Family Dytiscidae

Laccophilus sp.Celina slossoniC. angustataC. contigerCelina sp.Hydroporus lobatusH. lynceus complex

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
 EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS
 (Continued)

Phylum Arthropoda (Continued)

Class Insecta (Continued)

Order Coleoptera (Continued)

Family Dytiscidae (Continued)

Hydrovatus compressusH. probably compressusH. inexpectatusBidessus sp.

Family Elmidae

Stenelmis fuscata

Family Noteridae

Suphisellus gibbulusSuphisellus sp.Pronoterus semipunctatusP. probably semipunctatusHydrocanthus oblongusMesonoterus addenus

Family Heteroceridae

Heterocera sp.

Family Hydrophilidae

Tropisternus lateralisT. blatchleyi blatchleyiBerosus exiguus complexBerosus sp.Paracymus subcupreusEnochrus ochraceusE. hamiltoniE. pygmaeus complexEnochrus sp.

Family Hydrochidae

Hydrochus simplexH. equicarinatusH. subcupreus

Order Diptera

Family Tipulidae

Limonia sp.Helius sp.

Family Culicidae

Chaoborinae

Chaoborus flavicansC. punctipennisChaoborus sp.

Culicinae

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
 EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS
 (Continued)

Phylum Arthropoda (Continued)

Class Insecta (Continued)

Order Diptera (Continued)

Family Ceratopogonidae

Atrichopogon sp.

Dasyhelea sp.

Culicoides nr. venustus

Culicoides sp.

Stilobezzia antennalis

Stilobezzia sp.

Probezzia glabra

P. opaca

Palpomyia sp.

Bezzia - Probezzia

Bezzia - Probezzia group

Family Chironomidae

Tanypodinae

Clinotanypus sp.

Ablabesmyia janta

A. peleensis

A. rhamphe

Procladius culiciformis

P. nr. culiciformis

P. nr. riparius

Procladius sp.

Tanypus stellatus

Tanypus sp.

Undetermined sp. nr. Tanypus

Labrundia johannseni

L. neopilosella

Labrundia sp.

Larsia lurida

Orthoclaadiinae

Tribe Orthoclaadiini

Brillia sp.

Nanocladius alternantherae

Orthocladus nr. sp. 1 Roback

O. nr. nivoriundus

Cricotopus bicinctus

Cricotopus sp.

Corynoneura sp. 2 Roback

Tribe Metriocnemini

Metriocnemus abdominoflavatus

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS
(Continued)

Phylum Arthropoda (Continued)

Class Insecta (Continued)

Order Diptera (Continued)

Family Chironomidae (Continued)

Chironominae

Tribe Chironomini

Chironomus attenuatus

C. nr. attenuatus

C. sp. B Beck

C. sp. C Beck

C. crassicaudatus

C. fulvipilus

C. stigmaterus

C. nr. staegeri

Cryptochironomus fulvus

Dicrotendipes incurvus

D. modestus

D. nervosus

Dicrotendipes sp. (Mason's Einfeldia sp.)

Endochironomus nigricans

Endochironomus sp.

Kiefferulus dux

Tribelos jucundus

Glyptotendipes lobiferus

Glyptotendipes sp.

Lauterborniella varipennis

Microtendipes sp.

Phaenopsectra flavipes

P. nr. flavipes

Phaenopsectra sp.

Polypedilum halterale

P. nr. halterale

P. illinoense

P. scalaenum

Pseudochironomus fulviventrīs

Stictochironomus sp.

Chironomini I Beck

Chironomini L Beck

Harnischia collator

H. galeator

Parachironomus alatus

P. carinatus

P. hirtalatus

P. sublettei

Parachironomus sp.

Pedionomus beckae

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
 EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS
 (Continued)

Phylum Arthropoda (Continued)

Class Insecta (Continued)

Order Diptera (Continued)

Family Chironomidae (Continued)

Chironominae (Continued)

Tribe Tanytarsini

Tanytarsus sp. A BeckT. sp. B BeckT. prob. sp. B BeckT. nr. sp. 4 RobackT. sp. 5 RobackT. exiguusT. guerlusT. nr. guerlusT. varelusTanytarsus sp.Atanytarsus sp.Undetermined sp. nr. Atanytarsus

Family Stratiomyidae

Euparyphus sp.Undetermined sp. nr. Euparyphus sp.

Undetermined genus

Family Tabanidae

Chrysops sp.

Family Dolichopodidae

Family Ephydriidae

Notiphila sp.Ephydra sp.Setacera nr. needhamiUndetermined sp. nr. Brachydeutera

Undetermined genus

Phylum Mollusca

Class Gastropoda

Order Mesogastropoda

Family Pilidae

Pomacea sp.

Family Pleuroceridae

Goniobasis sp.

Family Bulimidae

Pomatiopsis sp.

Table C-2

CHECKLIST OF ORGANISMS COLLECTED FROM
EVERGLADES-CYPRESS SWAMP JETPORT MONITORING STATIONS
(Continued)

Phylum Mollusca (Continued)

Class Gastropoda (Continued)

Order Pulmonata

Family Physidae

Physa sp.

Family Ancyliidae

Ferrissia sp.

Family Lymnaeidae

Pseudosuccinea sp.

Family Planorbidae

Cyraulius sp.Helisoma sp.

Class Pelecypoda

Order Eulamellibranchia

Family Unionidae

Villosa villosa

Family Sphaeriidae

Musculium sp.Sphaerium sp.

Undetermined genus

Phylum Chordata

Class Osteichthyes

Order Cypriniformes

Family Catostomidae

Erimyzon sucetta

Order Cyprinodontiformes

Family Cyprinodontidae

Adina xenicaFloridichthys carpio carpioFundulus chrysotusF. cingulatusF. confluentus confluentusJordanella floridaeLucania goodeiL. parva

Family Poeciliidae

Gambusia affinisGambusia sp.Heterandria formosaMollienesia latipinna

Order Perciformes

Family Centrarchidae

Chaenobryttus coronariusLepomis sp.

Table C-3

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ORGANISMS COLLECTED FROM CANAL BOTTOM
WITH PETERSEN & EKMAN SAMPLERS

Organisms	Number of Organisms														
	Station 1*					Station 3**					Station 7*				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Plumatellidae															
Undetermined sp.									1	1					
Naididae															
<u>Haemonais waldvogeli</u>													1		1
Tubificidae															
<u>Limnodrilus hoffmeisteri</u>													2	2	4
Undetermined sp.											1	3	1	1	6
Hirudinea															
Undetermined sp.									3	3					
Talitridae															
<u>Hyaella azteca</u>	3	2		2	7	1		1	3	5		1			1
Caenidae															
<u>Caenis diminuta</u>									23	23					
Baetidae															
<u>Callibaetis floridanus</u>									1	1					
Leptoceridae															
<u>Oecetis</u> sp.	1				1										
Psychomyiidae															
<u>Cynellus fraternus</u>	1				1										
Hydrophilidae															
<u>Enochrus ochraceus</u>									1	1					
Culicidae															
<u>Chaoborus flavicans</u>				2	2										
<u>Chaoborus punctipennis</u>			1		1			1	10	11			4	23	27
<u>Chaoborus</u> sp.													1		1
Ceratopogonidae															
<u>Palpomyia tibialis</u>					2			1		3			1	2	3
Chironomidae															
<u>Procladius culiciformis</u>			11		11			4	19	24				2	2
<u>Procladius</u> sp.			1		1				4	5			1	2	3
<u>Tanytus stellatus</u>					1					1					
<u>Chironomus attenuatus</u>			4		4	5			7	12		18	1	6	25
<u>C. nr. attenuatus</u>			1		1				1	1			12		12
<u>C. sp. B Beck</u>			1		1										
<u>C. crassicaudatus</u>			4		4	27				27					
<u>Cryptochironomus fulvus</u>															
<u>Dicrotendipes incurvus</u>	5			13	18	3			25	28		1		1	2
<u>D. modestus</u>				2	2	1			32	33		2			2
<u>D. nervosus</u>									4	4					
<u>Dicrotendipes</u> sp. (Einfeldia sp.)									1	1					
<u>Kiefferulus dux</u>	2	2	6	1	11		6	3	3	12		62	87	14	163
Chironomini I Beck	1				1										
<u>Harnischia collator</u>													6		6
<u>Parachironomus alatus</u>	1				1										
<u>P. hirtalatus</u>	2		2	4	8	2		1		3					
<u>Tanytarsus</u> sp. B Beck			10		10				5	5				2	2
<u>T. prob.</u> sp. B Beck												2			2

* Petersen sampler used ** Ekman sampler used

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Table C-3

ORGANISMS COLLECTED FROM CANAL BOTTOM
WITH PETERSEN & EKMAN SAMPLERS
(Continued)

Organisms	Number of Organisms														
	Station 1*					Station 3**					Station 7*				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Chironomidae															
Tanytarsus sp. 5 Roback	1			1	2										
Atanytarsus sp.												3			3
Stratiomyiidae															
Undetermined sp.		1			1										
Pleuroceridae															
Goniobasis sp.	1			2	3										
Physidae															
Physa sp.						2				2					
Planorbidae															
Gyraulus sp.	1				1	1				1				1	1
Helisoma sp.	2				2		1			1				1	1
Unionidae															
Villosa villosa											3		1		4

* Petersen sampler used ** Ekman sampler used

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Table C-3

ORGANISMS COLLECTED FROM CANAL BOTTOM
WITH PETERSEN & EKMAN SAMPLERS
(Continued)

Organisms	Number of Organisms														
	Station 9*					Station 10 - Canal**					Station 10 - Slough**				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Plumatellidae															
<u>Plumatella repens</u>				P	P										
Lumbriculidae															
Undetermined sp.													1		1
Naididae															
<u>Haemonais waldvogeli</u>													1		1
Undetermined sp.						1	1			2			5		5
Tubificidae															
Undetermined sp.							1			1					
Glossiphoniidae															
Undetermined sp.				5	5				1	1					
Hirudinea															
Undetermined sp.								1		1			2		2
Asellidae															
<u>Asellus</u> sp.													5		5
Talitridae															
<u>Hyalella azteca</u>								54		54			10		10
Palaemonidae															
<u>Palaemonetes paludosus</u>								4		4					
Caenidae															
<u>Caenis diminuta</u>								2		2			3		3
Coenagrionidae															
<u>Ischnura</u> sp.				2	2										
Gomphidae															
<u>Aphylla williamsoni</u>							1			1					
Libellulidae															
<u>Libellula vibrans</u>								1		1					
<u>Perithemis tenera/seminole</u>													1		1
<u>Pachydiplax longipennis</u>								1		1					
<u>Tetragoneuria</u> sp.									2	2					
Undetermined sp.								1	2	3					
Leptoceridae															
<u>Oecetis</u> sp.			1		1										
Psychomyiidae															
<u>Cynellus fraternus</u>				1	1										
Culicidae															
<u>Chaoborus punctipennis</u>			1	11	12										
Ceratopogonidae															
<u>Palpomyia tibialis</u>		1		2	3		6	8	2	16					
Chironomidae															
<u>Procladius culiciformis</u>			1	2	3			2		2			4		4
<u>Procladius</u> sp.			4	6	10			5	1	6			6		6
<u>Tanypus stellatus</u>						2				2			1		1
<u>Chironomus attenuatus</u>			1	13	14	4	2	12		18			6		6
<u>C. nr. attenuatus</u>				2	2			20	2	22					

* Petersen Sampler used

** Ekman Sampler used

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Table C-3

ORGANISMS COLLECTED FROM CANAL BOTTOM
WITH PETERSEN & EKMAN SAMPLERS
(Continued)

Organisms	Number of Organisms														
	Station 9*					Station 10 - Canal*					Station 10 - Slough**				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Chironomidae															
<u>Chironomus crassicaudatus</u>						9		2		11					
<u>C. fulvipilus</u>						1				1					
<u>Dicrotendipes incurvus</u>			1	2	3	1				1					
<u>D. modestus</u>			1		1			6		6		8			8
<u>D. nervosus</u>												1			1
<u>Kiefferulus dux</u>		2	56	10	68		63	10	3	76					
<u>Tribelos jucundus</u>												2			2
<u>Lauterborniella varipennis</u>												6			6
<u>Polypedilum halterale</u>								1		1		4			4
<u>P. illinoense</u>												2			2
<u>Pseudochironomus richardsoni</u>								3		3					
<u>Chironomini</u> I Beck												18			18
<u>Parachironomus hirtalatus</u>								1	1	2					
<u>Pedionomus beckae</u>								2		2					
<u>Tanytarsus</u> sp. A Beck								8		8					
<u>T.</u> sp. B Beck			2		2			18		18					
<u>T.</u> prob. sp. B Beck						1				1		5			5
<u>T.</u> sp. 5 Roback								12		12		13			13
<u>T.</u> nr. sp. 5 Roback								6		6		41			41
<u>T. exiguus</u>				1	1										
<u>T. guerlus</u>												2			2
<u>Atanytarsus</u> sp.				7	7			3		3		11			11
Undet. nr. <u>Atanytarsus</u>												1			1
Ephydriidae															
<u>Notiphila</u> sp.						1				1					
<u>Setacera</u> nr. <u>needhami</u>						1				1					
Undetermined sp.						1				1					
Physidae															
<u>Physa</u> sp.				1	1										
Planorbidae															
<u>Gyraulus</u> sp.						1				1					
<u>Helisoma</u> sp.				2	2		1			1					

* Petersen sampler used ** Ekman sampler used

ORGANISMS COLLECTED FROM CANAL EDGES WITH STOVEPIPE SAMPLER

[illegible]

* Between levee and canal

Table C-4

ORGANISMS COLLECTED FROM CANAL EDGES WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms														
	Station 1					Station 7					Station 9				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
	Area #1	Area #2				Quad. #1 East	Quad. #2 West	May							
Astacidae															
Undetermined sp.		1	1		2					1					
Hydracarina			5	1	7								1		
Undetermined sp.															
Caenidae			1	1	13										
Caenis diminuta								2		2					
Baetidae															
Callibaetis floridanus								1		1					
Coenagrionidae															
Enallagma sp.															
Ischnura sp.															
Undetermined sp.			8	1	9			2		2					
Libellulidae															
Libellula vibrans															
Perithemis tenera/seminole															
Pachydiplax longipennis															
Erythemis simplicicollis															
Tetragoneuria sp.															
Brachymesia gravida															
Undetermined sp.															
Corixidae															
Undetermined sp.															
Naucoridae															
Pelocoris sp.															
Hydropsychidae															
Hydropsyche															
Hydroptilidae															
Agraylea multipunctata															
Oxyethira sp.															
Leptoceridae															
Oecetis cinerascens															
O. eddlestoni															

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* Between levee and canal

Table C-4

ORGANISMS COLLECTED FROM CANAL EDGES WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms													
	Station 1				Station 7				Station 9					
	May Area		Aug		May		Aug		May		Aug		May	
	#1	#2	#1	#2	East	West	East	West	#1	#2	#1	#2	#1	#2
Leptoceridae														
<u>O. sp.</u>			1											
Psychomyiidae														
<u>Cynellus fraternus</u>			1	3		1					1			
Pyrallidae														
<u>Nymphula sp.</u>														
Undetermined sp.														
Dytiscidae														
<u>Celina slossoni</u>														
<u>C. contiger</u>														
<u>Celina sp.</u>														
Hydropterus														
<u>Lynceus complex</u>														
<u>Hydrovatus compressus</u>														
Undetermined sp.														
Noteridae														
<u>Suphisellus gibbulus</u>														
<u>Suphisellus sp.</u>														
<u>Pronoterus semipunctatus</u>														
<u>P. prob. semipunctatus</u>														
<u>Mesonoterus addenus</u>														
Hydrophilidae														
<u>Berosus sp.</u>														
Hydrochidae														
<u>Hydrochus simplex</u>														
Tipulidae														
<u>Limonia sp.</u>														
Culicidae														
<u>Chaoborus flavicans</u>														
<u>C. punctipennis</u>														
<u>C. sp.</u>														

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* Between levee and canal

Table C-4

ORGANISMS COLLECTED FROM CANAL EDGES WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms																						
	Station 1					Station 7					Station 9												
	Area #1	#2	Aug	Dec	Feb	Tot	Quad.#1 East	#1 West	May	Quad.#2 East	#2 West	May	Aug	Dec	Feb	Tot	May	May *	Aug	Dec	Feb	Tot	
Ceratopogonidae																							
Dasyhelea sp.																							
Culicoides nr. venustus																							
Stilobezzia antennalis																							
Probezzia glabra																							
Palpomyia tibialis																							
Palpomyia sp.																							
Bezzia - Probezzia																							
Bezzia - Probezzia group																							
Undetermined sp.																							
Chironomidae																							
Ablabesmyia janta																							
A. peleensis																							
A. ramphe																							
Procladius culiciformis																							
P. nr. culiciformis																							
Procladius sp.																							
Tanyptus stellatus																							
Undetermined nr. Tanyptus																							
Labrundia johannseni																							
Larsia lurida																							
Brillia sp.																							
Nanocladius alternantherae																							
Orthocladius nr. sp. 1 Roback																							
Cricotopus binctus																							
Corynoneura sp. 2 Roback																							
Chironomus attenuatus																							
C. nr. attenuatus																							
C. sp. C Beck																							
C. crassicaudatus																							
C. fulvipilus																							
C. nr. staegeri																							

* Between levee and canal

Table C-4

ORGANISMS COLLECTED FROM CANAL EDGES WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms												
	Station 1					Station 7					Station 9		
	May		Aug	Dec	Feb	Total	May		Aug	Dec	Feb	Total	May
	Area #1	Area #2	Area #1	Area #2	Area #1	Area #2	Area #1	Area #2	Area #1	Area #2	Area #1	Area #2	Area #1
Chironomidae													
<u>Cryptochironomus fulvus</u>	1		5	60		66	1	23	6	31	1	1	6
<u>Dicrotendipes incurvus</u>				1		1	4	8	4	17	7	31	1
<u>D. modestus</u>	1					1						29	6
<u>D. nervosus</u>													
<u>Endochironomus nigricans</u>		1		5		6	3	3	4	11	4	16	1
<u>Kiefferulus dux</u>													
<u>Glyptotendipes lobiferus</u>				4		4	1	3	4	8	6	20	4
<u>Lauterborniella varipennis</u>	2			2	8	12	1				1	2	1
<u>Microtendipes sp.</u>												1	6
<u>Phaenopsectra flavipes</u>													
<u>P. nr. flavipes</u>													
<u>Polypedilum halterale</u>	7	1	4	7	6	25	2	1	1	4	1	35	1
<u>P. illinoense</u>			1	3	1	5		7		7	3	7	3
<u>Pseudochironomus fulviventrif</u>													
<u>Pseudochironomus richardsoni</u>				28		28	2	14	12	28	1	8	1
<u>Chironomini I Beck</u>				1		1						30	
<u>Chironomini L Beck</u>				1		1							
<u>Harnischia collator</u>													
<u>H. galeator</u>								1		1	7	8	6
<u>Parachironomus alatus</u>			4	3		7						1	1
<u>P. carinatus</u>													
<u>Pedionomus beckae</u>													
<u>Tanytarsus sp. A Beck</u>				3		3						2	1
<u>T. sp B Beck</u>	5	1	103	20		129	1				1	46	2
<u>T. prob. sp. B Beck</u>		1				1						13	2
<u>T. nr. sp. 4 Roback</u>				2		2		2				2	3
<u>T. sp. 5 Roback</u>			1	20	2	23	1	2			4	21	4
<u>T. guerlus</u>				2		2						1	5
<u>T. nr. guerlus</u>									1				1
<u>T. varelius</u>			2	17		19	1	8		2		11	2
<u>Tanytarsus sp.</u>	1					1						8	5

* Between levee and canal

Table C-4

ORGANISMS COLLECTED FROM CANAL EDGES WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms																
	Station 1					Station 7					Station 9						
	May Area #1	Aug Area #2	Dec	Feb	Tot	May East	Quad. #1 West	May Quad. #2 West	Aug	Dec	Feb	Tot	May *	Aug	Dec	Feb	Tot
Chironomidae																	
Atanytarsus sp.	3	2	14	10	29	2	1	1	5	1	117	3	126	1	52	10	63
Tabanidae																	
Chrysops sp.				2	2		1	1	2	1	7	4	14	1	2	5	8
Dolichopodidae																	
Undetermined sp.																	
Ephydriidae									1	1			1				
Notiphila sp.			2	2	4		1	1	2			9	11	2	3		15
Undetermined sp.						2			2		1	3					
Diptera																	
Undetermined sp.						1			1				1				
Pilidae																	
Pomacea sp.	3	5			8	3	1		4	3	3		10	4	2	1	9
Pleuroceridae																	
Goniobasis sp.	4	3		7	14				3	2		1	6	1			1
Bulimidae																	
Pomatopsis sp.																	
Physidae																	
Physa sp.																	
Ancylidae			16	4	20	1	1	1	3	3	1	2	9			1	1
Ferrissia sp.																	
Planorbidae																	
Helisoma sp.																	
Unionidae	2	16	5	7	30	8	5	1	14	12	21	5	44	2	10	12	34
Villosa villosa			2		2												
Sphaeriidae																	
Musculium sp.																	
Sphaerium sp.						2		1	3				3				
Catostomidae				1	1												
Erimyzon sucetta																	
Cyprinodontidae										1			1				
Fundulus chrysotus						1			1				2				

* Between levee and canal

Table C-4

ORGANISMS COLLECTED FROM CANAL EDGES WITH STOVEPIPE SAMPLER

Organisms	Number of Organisms													
	Station 1				Station 7				Station 9					
	May		Aug		May		Aug		May		Aug		May	
	Area #1	Area #2	Area #1	Area #2	East	West	East	West	East	West	East	West	East	West
Cyprinodontidae														
<u>F. confluentus confluentus</u>														
<u>Jordania floridae</u>														
<u>Lucania goodei</u>														
<u>L. parva</u>														
<u>Gambusia affinis</u>														
<u>Gambusia sp.</u>														
<u>Heterandria formosa</u>														
<u>Mollinnesia latipinna</u>														
<u>Undetermined sp.</u>														
Centrarchidae														
<u>Chaenobryttus coronarius</u>														
<u>Lepomis sp.</u>														

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* Between levee and canal

Table C-5

ORGANISMS COLLECTED FROM RUSH MARSHES
WITH STOVEPIPE SAMPLER

Organisms	Number of Organisms														
	Station 1					Station 8					Station 9				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Plumatellidae															
<u>Plumatella repens</u>													P	3P	4P
Undetermined sp.													4		4
Naididae															
<u>Dero digitata</u>							2				2				2
<u>Pristina sp.</u>													2		2
<u>Nais variabilis</u>				1	1								3		3
<u>Nais sp.</u>				3	3										
Undetermined sp.				1	1							3			3
Tubificidae															
<u>Limnodrilus hoffmeisteri</u>							2	1		3			1		1
<u>Aulodrilus pigueti</u>													7		7
Undetermined sp.	1				1		2			2				1	1
Erpobdellidae															
Undetermined sp.				4	4			3		3			3		3
Hirudinea															
Undetermined sp.			1		1						4		4	1	9
Talitridae															
<u>Hyalella azteca</u>	119	9	36	107	271		12	4		16	22	81	611	94	808
Palaemonidae															
<u>Palaemonetes paludosus</u>				1	1						17	11	39		67
<u>P. kadiakensis</u>											1		6		7
Undetermined sp.											1				1
Hydracarina															
Undetermined sp.	1				1										
Caenidae															
<u>Caenis diminuta</u>	3	2	3	8	17		3	23		26		1	53	2	56
Baetidae															
<u>Callibaetis floridanus</u>	1			1	2						1			1	2
Coenagrionidae															
<u>Enallagma sp.</u>	1				1										
Undetermined sp.	1		2		3							2	9	3	14
Libellulidae															
<u>Libellula vibrans</u>							1			1			1		1
<u>Libellula sp.</u>												2			2
<u>Perithemis tenera/seminole</u>												1			1
<u>Pachydiplax longipennis</u>	2	1		3	6									2	2
<u>Tetragoneuria sp.</u>							1			1					
<u>Brachymesia gravida</u>			1	2	3							2		1	3
Undetermined sp.			1		1		4			4			3	3	6
Corixidae															
<u>Trichocorixa sp.</u>											7				7
Undetermined sp.											7	7		1	15
Nepididae															
<u>Pelocoris sp.</u>	1				1		2			2					

Table C-5

ORGANISMS COLLECTED FROM RUSH MARSHES
WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms														
	Station 1					Station 8					Station 9				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Hydroptilidae															
<u>Oxyethira</u> sp.											2	5	3	2	12
Leptoceridae															
<u>Oecetis eddlestoni</u>		2		1	3								1		1
<u>O. nr. eddlestoni</u>											2				2
Psychomyiidae															
<u>Cynellus fraternus</u>	2				2						1		22		23
Pyrilidae															
<u>Nymphula</u> sp.	2				2										
Undetermined sp.													2		2
Dytiscidae															
<u>Celina slossoni</u>	1				1										
<u>C. angustata</u>												1	1		2
<u>C. contiger</u>	1				1			1		1		1	1		2
<u>Hydrovatus compressus</u>								1		1	1				1
<u>H. sp.</u>							1			1					
Undetermined sp.	3	1		2	6		4	2		6	2	41	25	2	70
Noteridae															
<u>Mesonoterus addenus</u>													8	2	10
<u>Berosus infuscatus</u>														2	2
<u>Berosus</u> sp.											1	1			2
<u>Enochrus</u> sp.							1			1					
Undetermined sp.	1				1										
Tipulidae															
<u>Helius</u> sp.													2		2
Culicidae															
Undetermined sp.													1		1
Ceratopogonidae															
<u>Dasyhelea</u> sp.	42	13	3	27	85	440	10			450					
<u>Stilobezzia</u> sp.													1	1	1
<u>Palpomyia</u> sp.														1	1
<u>Bezzia - Probezzia</u> v	1				1								2	2	4
Chironomidae															
<u>Clinotanypus</u> sp.														3	3
<u>Ablabesmyia janta</u>	3	4	2	7	16	8	1			9	4	6	7		17
<u>A. peleensis</u>						1				1		5	1		6
<u>A. ramphe</u>			4	6	10	10				10			2		2
<u>Procladius culiciformis</u>	1				1						6		38	12	56
<u>P. nr. culiciformis</u>				5	5										
<u>Procladius</u> sp.				1	1			2		2		11	33		44
<u>Tanypus stellatus</u>												1		12	13
<u>Labrundia johannseni</u>													1		1
<u>Larsia lurida</u>		1			1		3			3				1	1
<u>Brillia</u> sp.			1		1										
<u>Orthocladius</u> nr. sp. 1 Roback	10	2	1	1	14	27				27		1			1
<u>Cricotopus</u> sp.			1		1										

Table C-5

ORGANISMS COLLECTED FROM RUSH MARSHES
WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms														
	Station 1					Station 8					Station 9				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Chironomidae															
<u>Metriocnemus abdominoflavatus</u>													1		1
<u>Chironomus attenuatus</u>											2	47	187	236	
<u>C. nr. attenuatus</u>				1	1		1			1		45	39	84	
<u>C. crassicaudatus</u>														1	1
<u>C. fulvipilus</u>													4	1	5
<u>C. stigmaterus</u>											1				1
<u>Cryptochironomus fulvus</u>				1	1										
<u>Dicrotendipes incurvus</u>											3	6	6		15
<u>D. modestus</u>														2	2
<u>Endochironomus nigricans</u>	2				2									3	3
<u>Kiefferulus dux</u>													1	6	7
<u>Glyptotendipes lobiferus</u>													3	1	4
<u>Glyptotendipes sp.</u>													2		2
<u>Lauterborniella varipennis</u>	10	2		20	32		8			8	4		1	2	7
<u>Phaenopsectra nr. flavipes</u>													3		3
<u>Phaenopsectra sp.</u>											1				1
<u>Polypedilum halterale</u>	26	2		16	44		13	6		19	6	4	7		17
<u>P. illinoense</u>												1	3		4
<u>P. scalaenum</u>											1				1
<u>Pseudochironomus fulviventris</u>													2		2
<u>P. richardsoni</u>							1			1	2	1			3
<u>Chironomini L Beck</u>	1	1	1		3			1		1					
<u>Harnischia collator</u>								1		1	3	33	30	66	
<u>Parachironomus alatus</u>							1			1					
<u>P. hirtalatus</u>			1		1						1				1
<u>Pedionomus beckae</u>													8		8
<u>Tanytarsus sp. A Beck</u>											2	1			3
<u>T. sp. B Beck</u>	7		19	164	190			44		44	1	1	190	33	225
<u>T. prob. sp. B Beck</u>	1				1								2	1	3
<u>T. sp. 5 Roback</u>	2			2	4		7	10		17	1	8	12	21	
<u>T. nr. sp. 5 Roback</u>											1		1		2
<u>T. nr. guerlus</u>							1			1					
<u>T. varelus</u>	1				1								1		1
<u>Tanytarsus sp.</u>											1				1
<u>Atanytarsus sp.</u>	16	5	22	7	50		86	34		120		5	10	40	55
Stratiomyidae															
Undet. nr. <u>Euparyphus</u>		1			1										
Tabanidae															
<u>Chrysops sp.</u>				2	2							2			2
Ephydriidae															
<u>Notiphila sp.</u>											1		8	6	15
Ilidae															
<u>Pomacea sp.</u>	1				1							7	1		8
Bulimidae															
<u>Pomatiopsis sp.</u>								9		9					

Table C-5

ORGANISMS COLLECTED FROM RUSH MARSHES
WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms														
	Station 1					Station 8					Station 9				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Physidae															
<u>Physa</u> sp.			2	1	3		2			2			7	7	14
Ancylidae															
<u>Ferrissia</u> sp.													3	1	4
Planorbidae															
<u>Helisoma</u> sp.							3		6	9	2	9	8	7	26
Sphaeridae															
<u>Musculium</u> sp.			2		2										
Cyprinodontidae															
<u>Jordanella floridae</u>													1		1
<u>L. parva</u>							1			1					
Poeciliidae															
<u>Gambusia affinis</u>	1		1		2		3			3		8		11	19
<u>Heterandria formosa</u>		2			2		6			6		10	2		12

Table C-6

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ORGANISMS COLLECTED FROM SAWGRASS MARSHES
WITH STOVEPIPE SAMPLER

Organisms	Number of Organisms									
	Station 7					Station 8				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Planariidae										
Undetermined sp.			1		1					
Plumatellidae										
<u>Plumatella repens</u>	P				P	P				P
Lumbriculidae										
Undetermined sp.			2		2					
Naididae										
<u>Nais variabilis</u>			3		3					
Tubificidae										
<u>Aulodrilus pigueti</u>								1		1
Undetermined sp.		4		1	5					
Erpobdellidae										
Undetermined sp.	3		11		14					
Hirudinea										
Undetermined sp.	2	2	2		6		4			4
Talitridae										
<u>Hyaella azteca</u>	88	98	15		201		22			22
Hydracarina										
Undetermined sp.	1				1					
Caenidae										
<u>Caenis diminuta</u>		3	6		9		9	2		11
Baetidae										
<u>Callibaetis floridanus</u>		1			1		2			2
Coenagrionidae										
<u>Enallagma</u> sp.	1				1		1			1
<u>Ischnura ramburii</u>		1			1					
Undetermined sp.	4	1			5		2			2
Gomphidae										
<u>Aphylla williamsoni</u>							1			1
Libellulidae										
<u>Libellula vibrans</u>		4	2		6		1	1		2
<u>Pachydiplax longipennis</u>								2		2
<u>Brachymesia gravida</u>			1		1			1		1
Undetermined sp.		2			2		1			1
Belostomatidae										
<u>Belostoma</u> sp.							1			1
Corixidae										
Undetermined sp.		1			1					
Naucoridae										
<u>Pelocoris</u> sp.	7	2	2		11		1			1
Hydroptilidae										
<u>Agraylea multipunctata</u>							2			2
Psychomyiidae										
<u>Cynellus fraternus</u>			2		2		1			1
Pyralidae										
<u>Nymphula</u> sp.	1				1					
Undetermined sp.			2		2					

Table C-6

ORGANISMS COLLECTED FROM SAWGRASS MARSHES
WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms									
	Station 7					Station 8				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Dytiscidae										
<u>Celina slossoni</u>			1		1					
<u>C. contiger</u>	1	3	10		14		4	1		5
<u>Celina sp.</u>		2			2					
<u>Hydroporus lobatus</u>	1				1					
<u>Hydrovatus compressus</u>	5	3	3		11		1			1
<u>H. probably compressus</u>		8			8		4			4
<u>H. inexpectatus</u>							2	3		5
Undetermined sp.	19	24	22		65		6	9		15
Noteridae										
<u>Suphisellus gibbulus</u>							1			1
<u>Hydrocanthus oblongus</u>							3			3
Hydrophilidae										
<u>Berosus sp.</u>	5	22	24		51		2			2
<u>Paracymus subcupreus</u>			1		1					
<u>Enochrus ochraceus</u>	1		3		4					
<u>E. hamiltoni</u>		1			1					
<u>Enochrus sp.</u>		9			9					
Undetermined sp.	2	4	2		8					
Tipulidae										
<u>Limonia sp.</u>	9		12		21					
Ceratopogonidae										
<u>Atrichopogon sp.</u>				1	1					
<u>Dasyhelea sp.</u>	109	118	48		275		455	6		461
<u>Culicoides sp.</u>				1	1					
<u>Stilobezzia antennalis</u>		1			1					
<u>Stilobezzia sp.</u>		2			2					
<u>Bezzia - Probezzia group</u>			1	1	2					
Undetermined sp.			1		1					
Chironomidae										
<u>Ablabesmyia janta</u>		9	2		11		20			20
<u>A. ramphe</u>							16			16
<u>Procladius culiciformis</u>	1				1					
<u>Procladius sp.</u>								1		1
<u>Tanytus sp.</u>			2		2					
<u>Larsia lurida</u>	17	8	3		28		3			3
<u>Orthocladius nr. sp. 1 Roback</u>	11	2	3		16		43	1		44
<u>Chironomus attenuatus</u>		1			1					
<u>C. nr. attenuatus</u>	1		2		3			1		1
<u>C. crassicaudatus</u>								2		2
<u>C. fulvipilus</u>			3		3					
<u>C. stigmaterus</u>			3		3					
<u>C. nr. staegeri</u>		2			2					
<u>Dicrotendipes incurvus</u>	8	1	1		10					
<u>D. modestus</u>	5	3			8					
<u>Endochironomus nigricans</u>	1	3			4		1			1

Table C-6

ORGANISMS COLLECTED FROM SAWGRASS MARSHES
WITH STOVEPIPE SAMPLER
(Continued)

Organisms	Number of Organisms									
	Station 7					Station 8				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Chironomidae										
<u>Glyptotendipes lobiferus</u>	2		3		5					
<u>Lauterborniella varipennis</u>	1	8	10		19		9	1		10
<u>Polypedilum halterale</u>	17	21	29		67		23	2		25
<u>P. illinoense</u>	19	2	7		28		2			2
<u>Pseudochironomus richardsoni</u>	6	1	1		8					
<u>Chironomini J Beck</u>			2		2					
<u>Chironomini L Beck</u>							2			2
<u>Harnischia collator</u>			14		14			2		2
<u>Parachironomus alatus</u>	1				1					
<u>Tanytarsus sp. B Beck</u>		1	2		3		1	8		9
<u>T. sp. S Roback</u>		1	1		2		12			12
<u>T. varelus</u>			17		17					
<u>Atanytarsus sp.</u>	20	4	10		34	134	23			157
Stratiomyiidae										
<u>Euparyphus sp.</u>		3	5		8		1			1
Undetermined sp.		7			7					
Tabanidae										
<u>Chrysops sp.</u>	3	3	5		11			5		5
Dolichopodidae										
Undetermined sp.			1		1					
Ephydriidae										
<u>Notiphila sp.</u>	2		4		6			1		1
Pilidae										
<u>Pomacea sp.</u>	1	1			2					
Bulimidae										
<u>Pomatiopsis sp.</u>							1	3		4
Physidae										
<u>Physa sp.</u>	2	6	9		17	3				3
Ancylidae										
<u>Ferrissia sp.</u>			2		2					
Planorbidae										
<u>Helisoma sp.</u>			2		2		6	1		7
Sphaeriidae										
Undetermined sp.							1			1
Cyprinodontidae										
<u>Adinia xenica</u>		1			1					
<u>Jordanella floridae</u>	1				1			1		1
Poeciliidae										
<u>Gambusia affinis</u>							3			3
<u>Heterandria formosa</u>	3				3		1			1

Table C-7

QUALITATIVE MACROINVERTEBRATE COLLECTIONS
FROM BIG CYPRESS SWAMP JETPORT STATIONS

Organisms	Number of Organisms														
	Station 1					Station 3					Station 7				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Planariidae															
Undetermined sp.						4				4					
Glossiphoniidae															
Undetermined sp.									2	2					
Hirudinea															
Undetermined sp.		3			3	4				4				1	1
Talitridae															
<u>Hyaella azteca</u>	64	2	6	76	138	3	45	9	21	78		15	6	26	47
Palaemonidae															
<u>Palaemonetes paludosus</u>	1	10	11	34	56		31	20	67	118	5	4	11	73	93
<u>P. Kadiakensis</u>			1	2	3			1	15	16			1	11	12
Astacidae															
Undetermined sp.				1	1			1		1					
Hydracarina															
Undetermined sp.														1	1
Caenidae															
<u>Caenis diminuta</u>				4	4		24		2	26				5	5
Baetidae															
<u>Callibaetis floridanus</u>				1	1		7		8	15		1			1
Coenagrionidae															
<u>Enallagma</u> sp.	2				2		6		2	8					
<u>Ischnura</u> sp.							4	1	6	11					
Undetermined sp.	1		1		2		16		21	37	1		1		2
Libellulidae															
<u>Pachydiplax longipennis</u>			2		2						1		2	1	4
<u>Erythemis simplicicollis</u>							3		7	10					
<u>Tetragoneuria</u> sp.				1	1		1		1	2					
<u>Epicordulia regina</u>						1				1					
<u>Brachymesia gravida</u>				2	2			2		2			2		2
Undetermined sp.				4	4	3	7		3	13		1			1
Belostomatidae															
<u>Belostoma</u> sp.									2	2					
<u>Abedus</u> sp.											2				2
Corixidae															
<u>Trichocorixa</u> sp.		1			1										
Undetermined sp.														1	1
Veliidae															
<u>Velia</u> sp.				1	1										
Nepidae															
<u>Ranatra</u> sp.								3		3					
Naucoridae															
<u>Pelocoris</u> sp.						13	1	1		15	1				1
Hydroptilidae															
<u>Oxyethira</u> sp.						1				1				2	2
Leptoceridae															
<u>Oecetis cinerascens</u>						2				2					

QUALITATIVE MACROINVERTEBRATE COLLECTIONS
FROM BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

Organisms	Number of Organisms														
	Station 1					Station 3					Station 7				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Psychomyiidae															
<u>Cynellus fraternus</u>						2				2					
Pyralidae															
<u>Nymphula</u> sp.	4				4										
Undetermined sp.	1				1										
Dytiscidae															
<u>Laccophilus</u> sp.							1			1					
<u>Celina slossoni</u>		3			3										
Noteridae															
<u>Pronoterus semipunctatus</u>		2			2										
<u>Hydrocanthus oblongus</u>							1		1	2					
Hydrophilidae															
<u>Berosus</u> sp.							1			1					
<u>Enochrus ochraceus</u>									2	2					
<u>E. pygmaeus</u> complex									2	2					
<u>Enochrus</u> sp.	1				1										
Hydrochidae															
<u>Hydrochus equicarinatus</u>						1				1					
Ceratopogonidae															
<u>Dasyhelea grisea</u>							3			3					
<u>D. traversae</u>							3			3					
<u>Dasyhelea</u> sp.	1				1										
<u>Probezzia glabra</u>							1			1					
<u>Bezzia - Probezzia</u>						9	2			11					
Chironomidae															
<u>Ablabesmyia ramphe</u>	18				18		1			1		2			2
<u>Procladius culiciformis</u>				6	6		2	1		3					
<u>Procladius</u> sp.				2	2										
<u>Labrundia</u> sp.						1				1					
<u>Larsia lurida</u>						4	3			7		4			4
<u>Orthocladius</u> nr. sp. 1 Roback	2			2			3			3		1			1
<u>Chironomus attenuatus</u>				1	1	2				2	1				1
<u>C. nr. attenuatus</u>				4	4		6			6					
<u>C. crassicaudatus</u>						2				2					
<u>C. fulvipilus</u>						31				31					
<u>Dicrotendipes incurvus</u>	3	1		5	9	10	1			11	2				2
<u>D. modestus</u>				5	5	46	1			47					
<u>Dicrotendipes</u> sp. (Einfeldia sp.)											1			3	4
<u>Endochironomus nigricans</u>	2			1	3									2	2
<u>Endochironomus</u> sp.						1				1	9			14	23
<u>Kiefferulus dux</u>		3			3										
<u>Glyptotendipes lobiferus</u>						1	1			1					
<u>Lauterborniella varipennis</u>							2			3	4			27	31
<u>Phaenopsectra flavipes</u>				1	1					2					
<u>Polypedilum halterale</u>				2	2		3			3					
<u>P. illinoense</u>				1	1									1	1

Table C-7

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QUALITATIVE MACROINVERTEBRATE COLLECTIONS
FROM BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

Organisms	Number of Organisms														
	Station 1					Station 3					Station 7				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Chironomidae															
<u>Pseudochironomus fulviventr</u>															
<u>P. richardsoni</u>				1	1	11				11		3		3	6
<u>Stictochironomus</u> sp.														1	1
Chironomini, I Beck						1								1	1
<u>Harnischia collator</u>				1	1					1					
<u>Parachironomus alatus</u>	1				1										
<u>P. hirtalatus</u>						41				41					
<u>P. sublettei</u>						3				3					
<u>Pedionomus beckae</u>															
<u>Tanytarsus</u> sp. A Beck				1	1	5	3			8				1	1
<u>T. sp. B Beck</u>				10	10	13	13			26				3	3
<u>T. prob. sp. B Beck</u>		1			1	9				9					
<u>T. sp. 5 Roback</u>				2	2	3	4			7				8	8
<u>T. nr. sp. 5 Roback</u>							5			5					
<u>T. nr. guerlus</u>														1	1
<u>T. varelus</u>		1			1										
<u>Tanytarsus</u> sp.		4			4		3			3				1	1
Stratiomyiidae															
<u>Euparyphus</u> sp.									1	1					
Ephydriidae															
Undet. nr. Brachydeutera						4				4					
Undetermined sp.		1			1										
Pilidae															
<u>Pomacea</u> sp.							3			3	1	1			2
Bulimidae															
<u>Pomatiopsis</u> sp.									1	1					
Physidae															
<u>Physa</u> sp.	6		10		16		1	3	11	14			10		10
Lymnaeidae															
<u>Pseudosuccinea</u> sp.									1	1					
Planorbidae															
<u>Gyraulus</u> sp.						24	1	12	41	78					
<u>Helisoma</u> sp.	3		6	3	12	8		2	6	16	6	1	6	3	16
Cyprinodontidae															
<u>F. confluentus confluentus</u>							1			1					
<u>Jordanella floridae</u>							1		2	3					
<u>Lucania goodei</u>			2	18	20						2		2	7	11
Poeciliidae															
<u>Gambusia affinis</u>		5		11	16	1			4	5	11		6	1	18
<u>Gambusia</u> sp.			6		6										
<u>Heterandria formosa</u>															
<u>Mollienesia latipinna</u>							27		9	36	24	7		3	34
Centrarchidae							2			2					
<u>Lepomis</u> sp.	1		3	4		1				1					

Table C-7

QUALITATIVE MACROINVERTEBRATE COLLECTIONS
FROM BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

Organisms	Number of Organisms														
	Station 8					Station 9					Station 10				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Planariidae															
Undetermined sp.						1				1					
Plumatellidae															
Plumatella repens												P			P
Naididae															
Undetermined sp.											1				1
Glossiphoniidae															
Undetermined sp.														2	2
Hirudinea															
Undetermined sp.							1			1	3				3
Talitridae															
Hyalella azteca		1			1	1	5		80	86		6		26	32
Palaemonidae															
Palaemonetes paludosus			26		26			2	13	318			11	430	441
P. kadiakensis			8		8					72				91	91
Astacidae															
Undetermined sp.									1	1		10			10
Hydracarina															
Undetermined sp.														1	1
Caenidae															
Caenis diminuta		2			2			1	13	14		2		2	4
Baetidae															
Callibaetis floridanus		1			1	5		1	2	8		8		9	17
Coenagrionidae															
Enallagma sp.							1		6	7	5	1		7	13
Ischnura sp.									1	1	2				2
Undetermined sp.						2	1		10	13	2	6	2	6	1
Aeschnidae															
Coryphaeschna nr. ingens												1			1
Libellulidae															
Macromia sp.						1				1					
Pachydiplax longipennis												1			1
Erythemis simplicicollis													1	5	6
Celithemis sp.													1		1
Epicordulia regina							2			2					
Brachymesia gravida									1	1					
Undetermined sp.		2			2			3	7	10					
Belostomatidae															
Belostoma sp.	1				1										
Corixidae															
Undetermined sp.						1		1	1	3	1			1	2
Hydrometridae															
Hydrometra sp.		1			1										
Naucoridae															
Pelocoris sp.														2	2
Hydroptilidae															
Oxyethira sp.							1		2	3					
Leptoceridae															
Oecetis cinerascens									3	3					
O. sp.									2	2					

Table C-7

QUALITATIVE MACROINVERTEBRATE COLLECTIONS
FROM BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

Organisms	Number of Organisms														
	Station 8					Station 9					Station 10				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Psychomyiidae															
<u>Cynellus fraternus</u>							1			1					
Haliplidae															
<u>Peltodytes</u> sp.									3	3					
Noteridae															
<u>Hydrocanthus oblongus</u>														1	1
Hydrophilidae															
<u>Tropisternus blatchleyi</u>											1				1
<u>Berosus exiguus</u> complex											1				1
<u>Paracymus subcupreus</u>											2				2
<u>Enochrus ochraceus</u>											16			2	18
<u>E. pygmaeus</u> complex											3		1	5	9
Undetermined sp.		1			1						10				10
Hydrochidae															
<u>Hydrochus equicarinatus</u>														1	1
<u>H. subcupreus</u>														1	1
Tipulidae															
<u>Limonia</u> sp.											1				1
Culiridae															
<u>Chaoborus punctipennis</u>						6				6					
Ceratopogonidae															
<u>Dasyhelea</u> sp.		256			256		4			4					
<u>Culicoides</u> sp.		6			6										
<u>Probezzia glabra</u>							1	1		2				1	1
<u>P. opaca</u>		1			1										
<u>Bezzia - Probezzia</u>							6			6					
Chironomidae															
<u>Ablabesmyia janta</u>		1			1						1				1
<u>A. ramph</u>		2			2										
<u>Procladius culiciformis</u>						2		4	9	15				3	3
<u>Procladius</u> sp.								2		2					
<u>Larsia lurida</u>		4			4						39				39
<u>Brillia</u> sp.								1		1					
<u>Nanocladius alternantherae</u>						2				2					
<u>Orthocladius</u> nr. sp. 1 Roback		77			77	4		2		6					
<u>O. nr. invoriundus</u>						1				1					
<u>Chironomus attenuatus</u>						3			12	15				1	1
<u>C. nr. attenuatus</u>								7	2	9					
<u>C. crassicaudatus</u>						1				1					
<u>C. fulvipilus</u>						1				1					
<u>Dicrotendipes incurvus</u>						6	2	4	3	15	1			7	8
<u>D. modestus</u>						1			4	5	1				1
<u>Endochironomus nigricans</u>		7			7					2					
<u>Kiefferulus dux</u>						2				2					
<u>Glyptotendipes lobiferus</u>								1	2	3					
<u>Phaenopsectra</u> nr. <u>flavipes</u>								1		1					
<u>Polypedilum halterale</u>		2			2		1			1				2	2

Table C-7

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QUALITATIVE MACROINVERTEBRATE COLLECTIONS
FROM BIG CYPRESS SWAMP JETPORT STATIONS
(Continued)

Organisms	Number of Organisms														
	Station 8					Station 9					Station 10				
	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot	May	Aug	Dec	Feb	Tot
Chironomidae															
<u>P. illinoense</u>		2			2	1				1		1			1
<u>Pseudochironomus fulviventr</u>							1			1					
<u>P. richardsoni</u>	1				1			3		3	3				3
Chironomini L Beck	1				1										
<u>Harnischia collator</u>								4		4			2		2
<u>Parachironomus alatus</u>	2				2	2	2			4					
<u>P. hirtalatus</u>						4				4					
<u>Pedionomus beckae</u>										3					
<u>Tanytarsus</u> sp. A Beck	4				4	2	5	9	1	17	4			12	16
<u>T. sp. B Beck</u>						1	1	5	5	12				1	1
<u>T. sp. 5 Roback</u>	5				5				1	1				3	3
<u>T. nr. sp. 5 Roback</u>														2	2
<u>T. varelus</u>						4		2		6					
<u>Tanytarsus</u> sp.						1				1					
<u>Atanytarsus</u> sp.	67				67		1	3	2	6				2	2
Stratiomyiidae															
Undetermined sp.											1				1
Tabanidae															
<u>Chrysops</u> sp.							1			1					
Ephydriidae															
<u>Ephydra</u> sp.											1				1
Pilidae															
<u>Pomacea</u> sp.			1		1		2			2		2			2
Physidae															
<u>Physa</u> sp.						1			7	8		8	1	1	10
<u>Ferrissia</u> sp.								1		1					
Planorbidae															
<u>Gyraulus</u> sp.									2	2		1		7	8
<u>Helisoma</u> sp.	4				4	8	8		12	28	1		4	6	11
Unionidae															
<u>Villosa villosa</u>							1	2		3					
Cyprinodontidae															
<u>Adinia xenica</u>												4			4
<u>Floridichthys carpio carpio</u>		1			1										
<u>F. confluentus confluentus</u>		1			1										
<u>Jordanella floridae</u>		3			3										
<u>Lucania goodei</u>													1	3	4
Poeciliidae															
<u>Gambusia affinis</u>													4		4
<u>Heterandria formosa</u>						2		18		20		6		34	40
<u>Mollienesia latipinna</u>								1		1			2	1	3
<u>Lepomis</u> sp.														2	2

FIG. C-1
 DISSOLVED OXYGEN (ppm),
 TEMP. (°C) AND pH DATA AT
 STATION 3
 EVERGLADES JETPORT STUDY

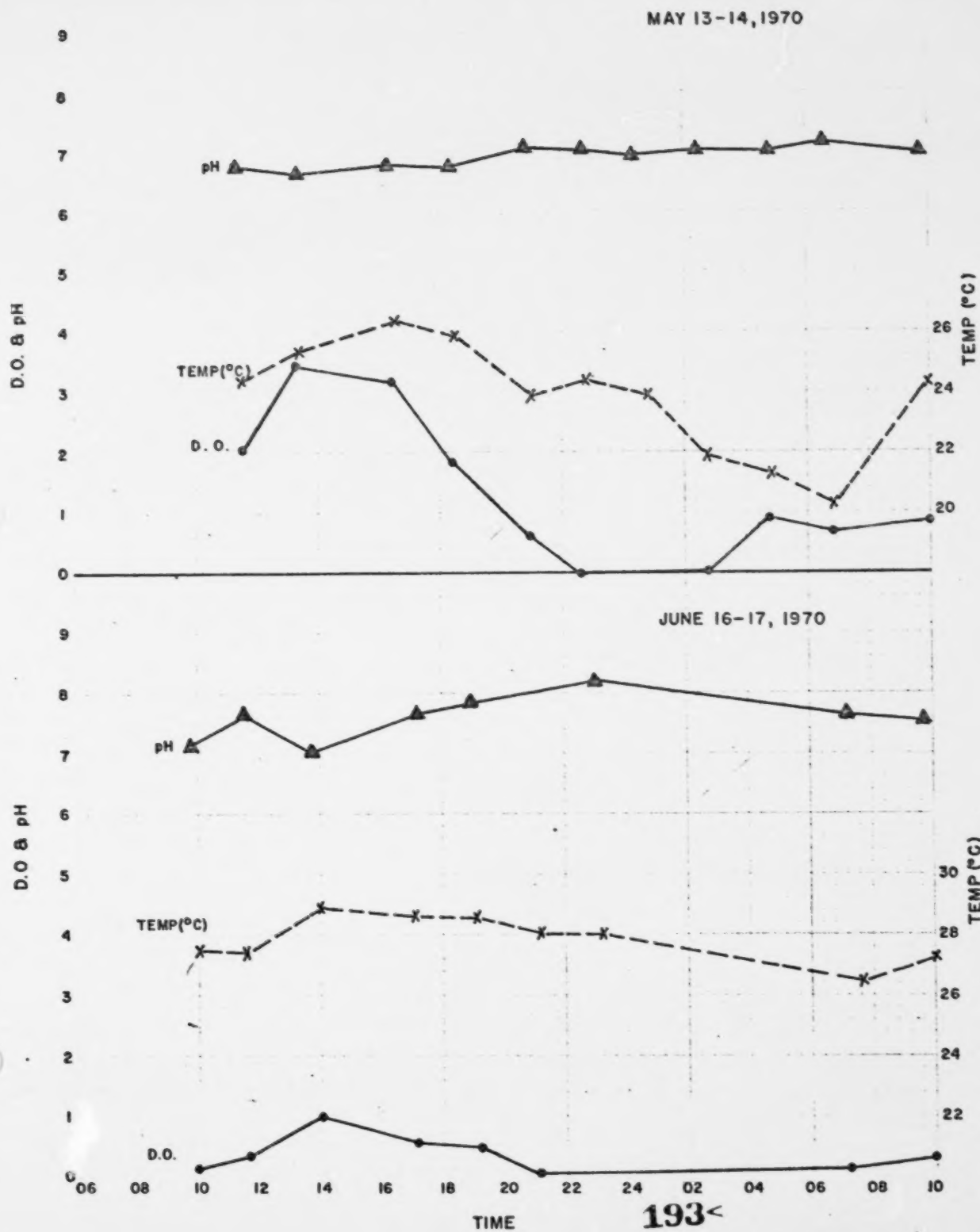


FIG. C-2
 DISSOLVED OXYGEN (ppm),
 TEMP (°C) AND pH DATA AT
 STATION 3
 EVERGLADES JETPORT STUDY

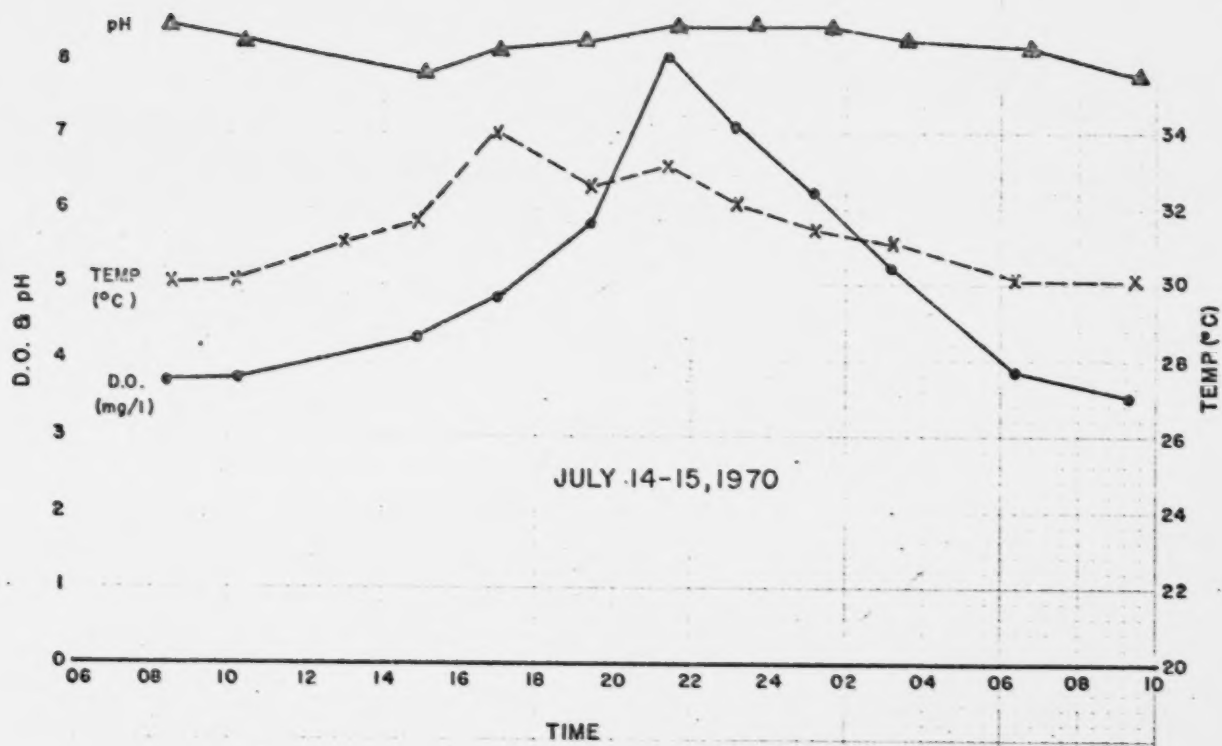


FIG. C-3
DISSOLVED OXYGEN (ppm),
TEMP (°C) AND pH DATA AT
STATION 3

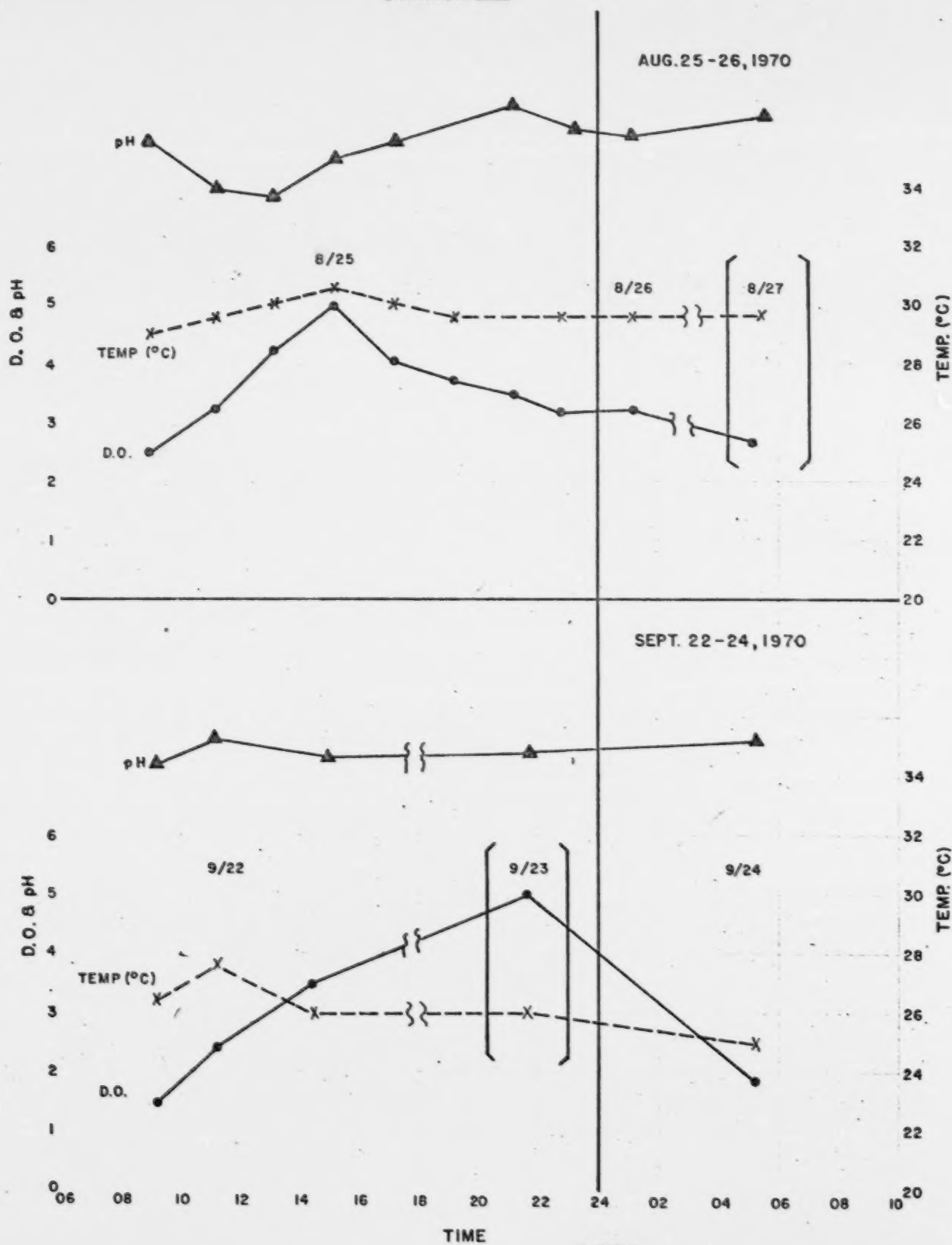


FIG. C-4
DISSOLVED OXYGEN (ppm),
TEMP (°C) AND pH DATA AT
STATION 3
EVERGLADES JETPORT STUDY

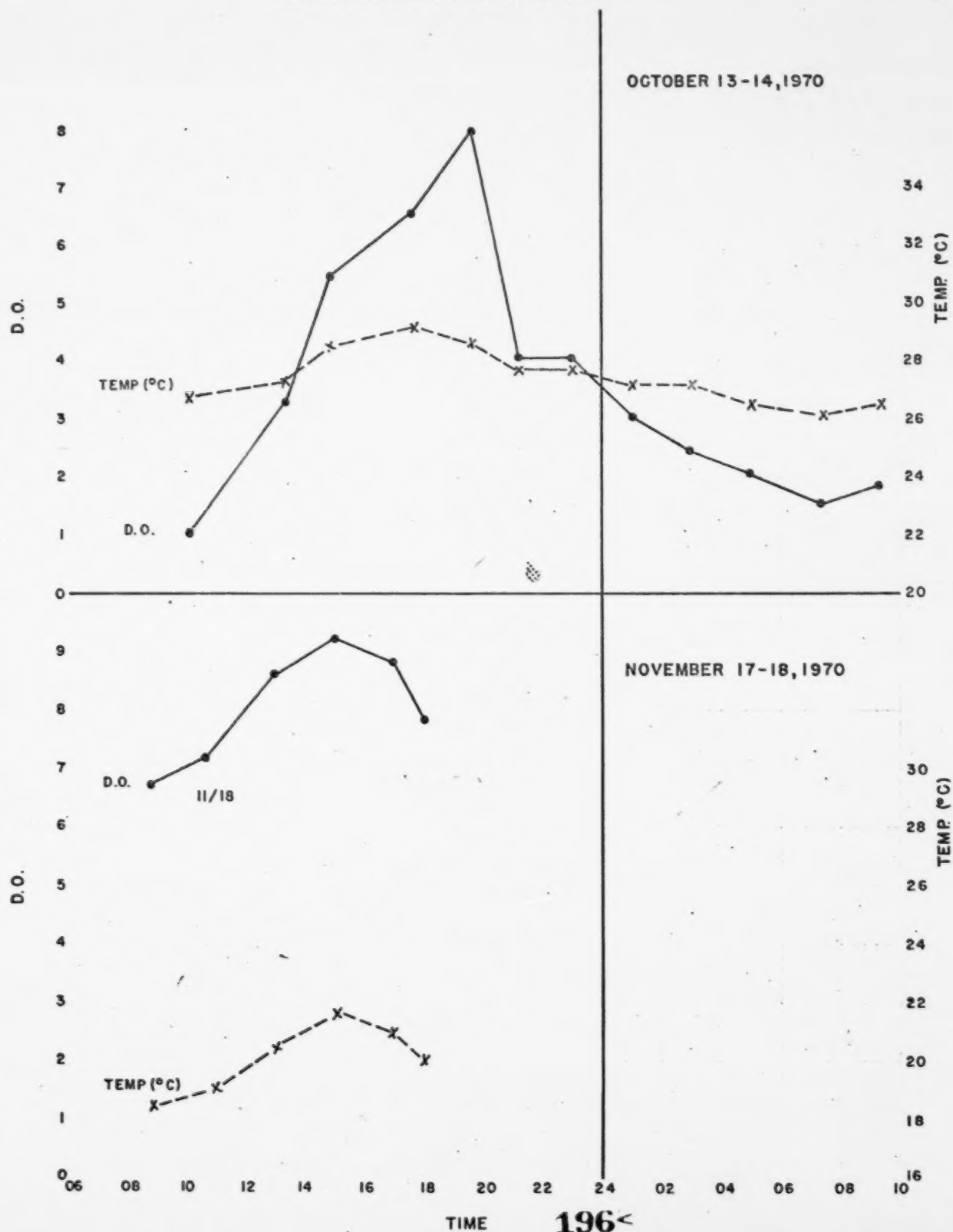


FIG. C-5
 DISSOLVED OXYGEN (ppm),
 AND TEMP. (°C) DATA AT
 STATION 3
 EVERGLADES JETPORT STUDY

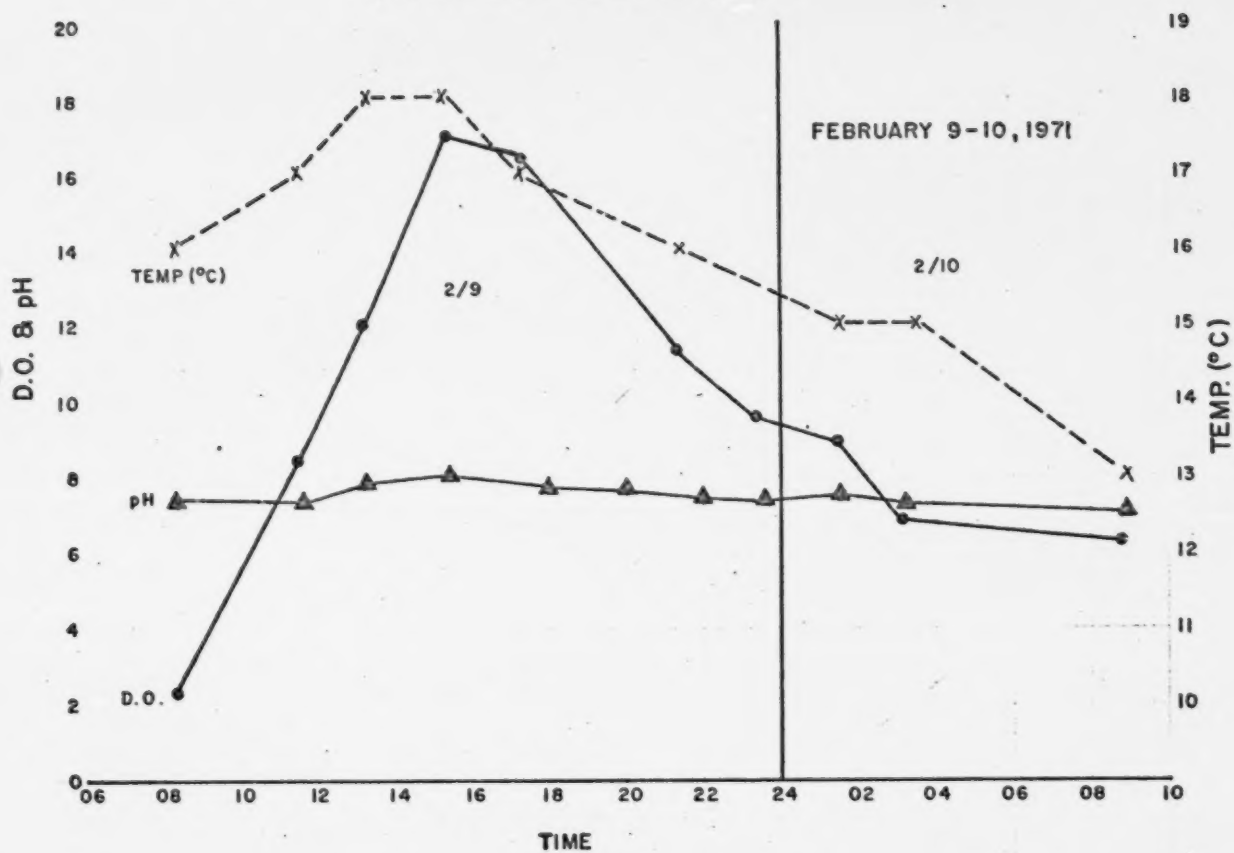


FIG. C-6
 DISSOLVED OXYGEN (ppm),
 TEMP. (°C) AND pH DATA AT
 STATION 7
 EVERGLADES JETPORT STUDY

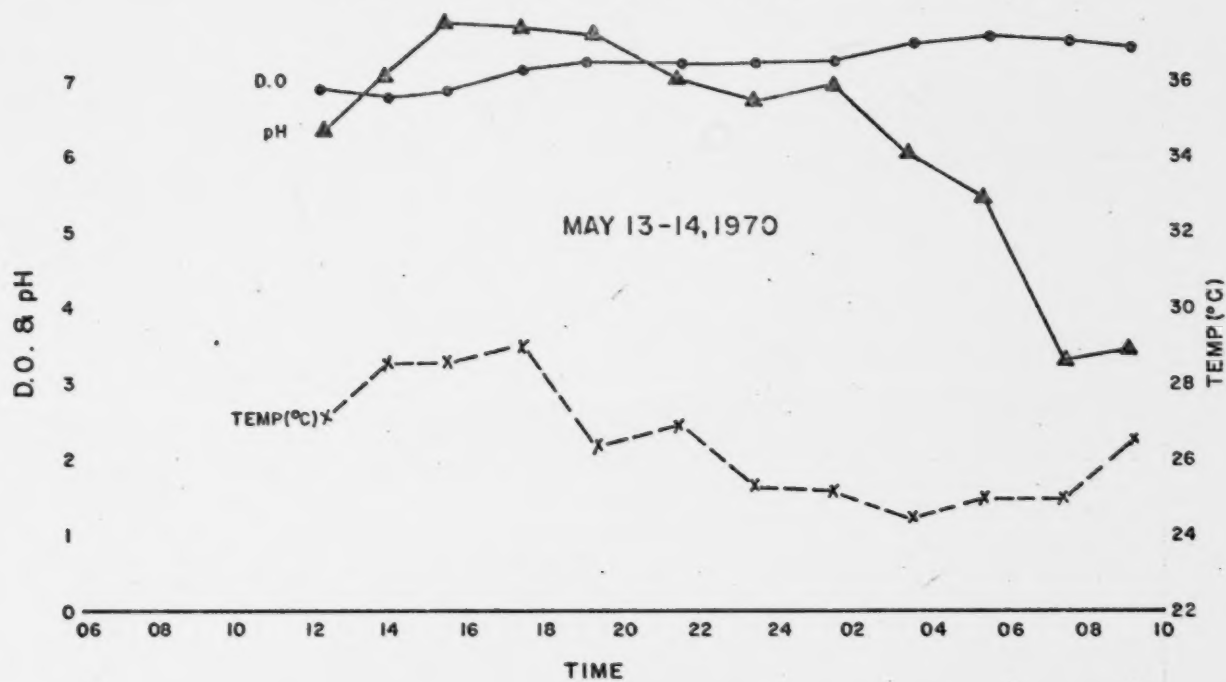


FIG. C-7
 DISSOLVED OXYGEN (ppm),
 TEMP. (°C) AND pH DATA AT
 STATION 7
 EVERGLADES JETPORT STUDY

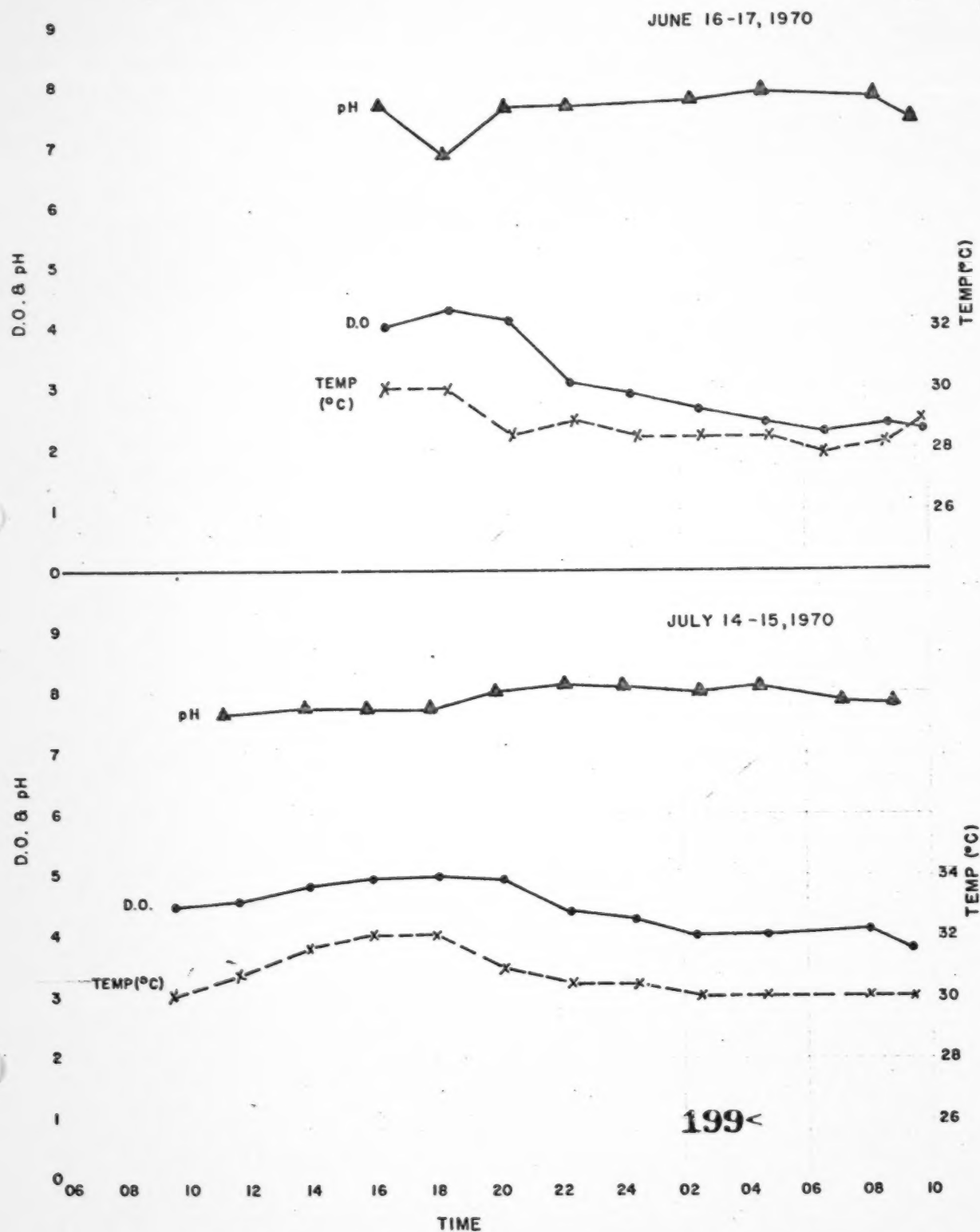


FIG. C-8
DISSOLVED OXYGEN (ppm),
TEMP. (°C) AND pH DATA AT
STATION 7
EVERGLADES JETPORT STUDY

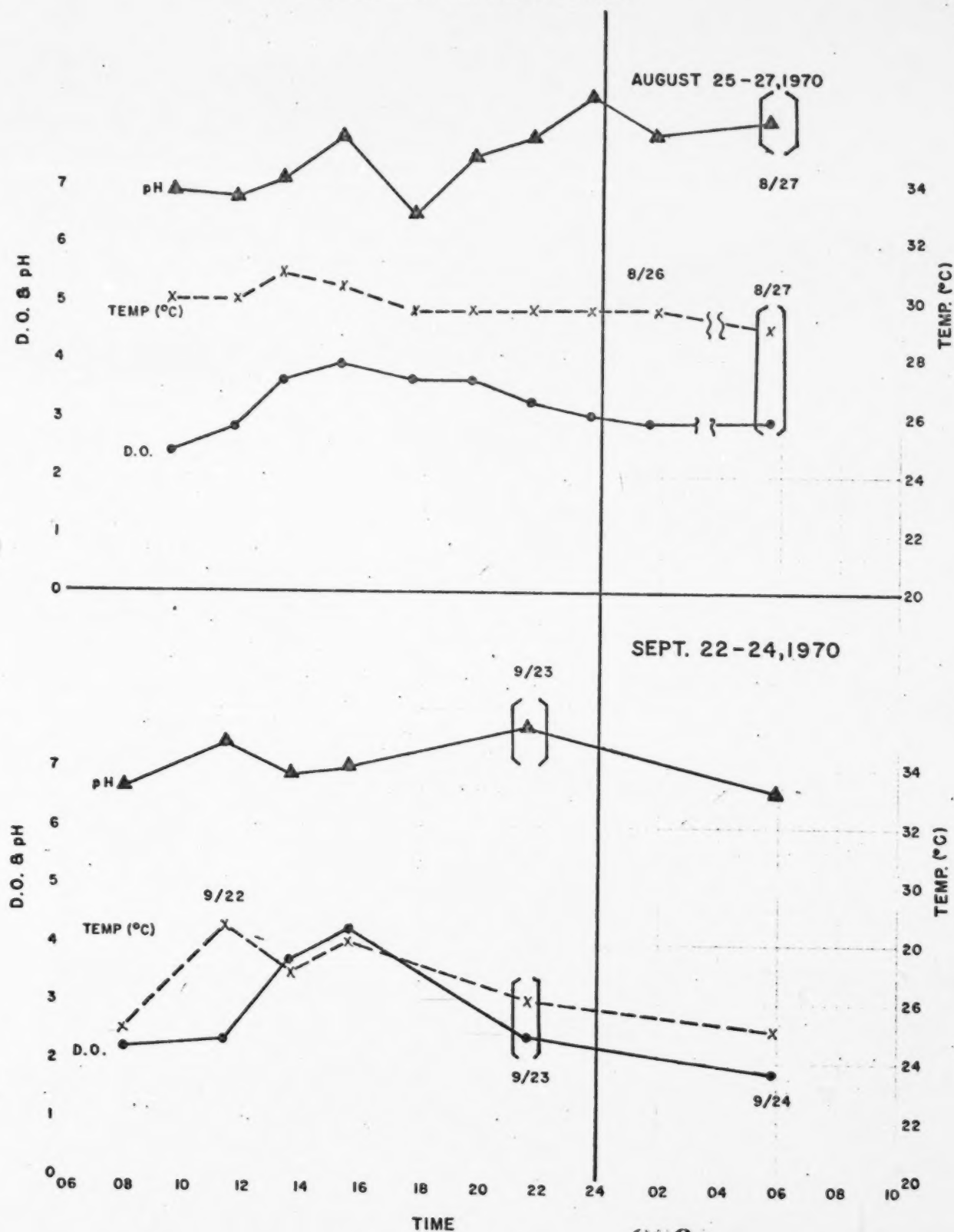


FIG. C-9
DISSOLVED OXYGEN (ppm),
AND TEMP. (°C) DATA AT
STATION 7
EVERGLADES JETPORT STUDY

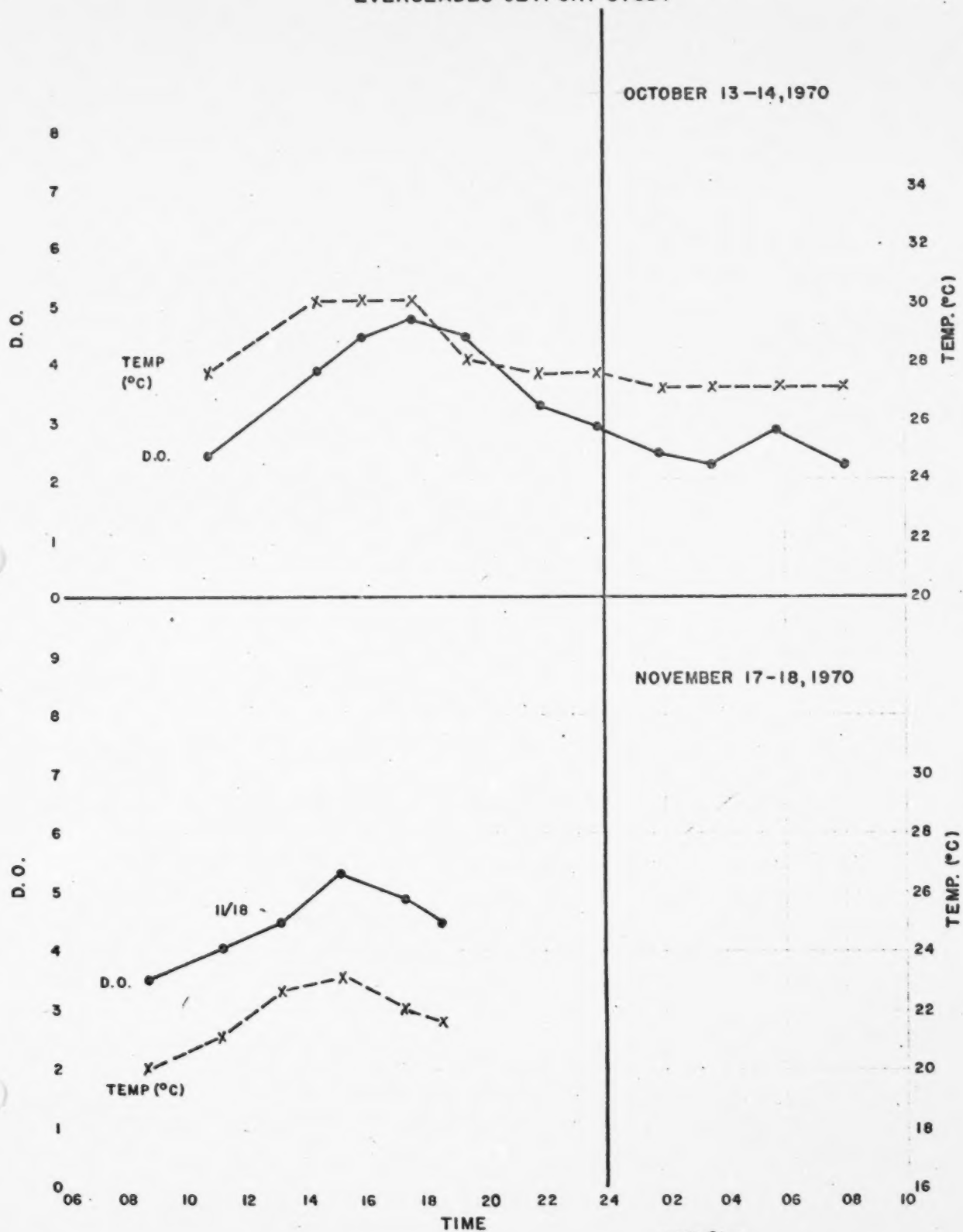


FIG. C-10
 DISSOLVED OXYGEN (ppm),
 TEMP. (°C) AND pH DATA AT
 STATION 7
 EVERGLADES JETPORT STUDY

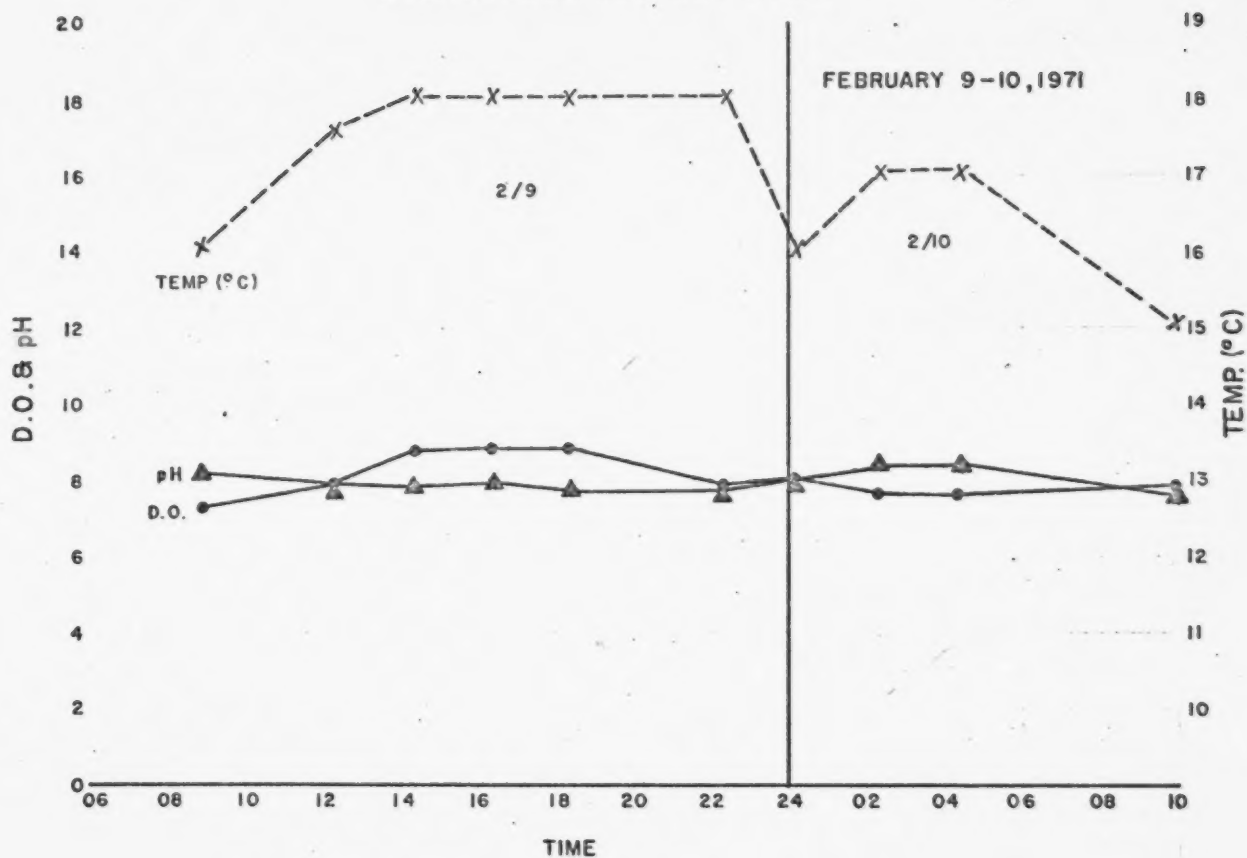


FIG. C-II
DISSOLVED OXYGEN (ppm),
TEMP (°C) AND pH DATA AT
STATION 10
EVERGLADES JETPORT STUDY

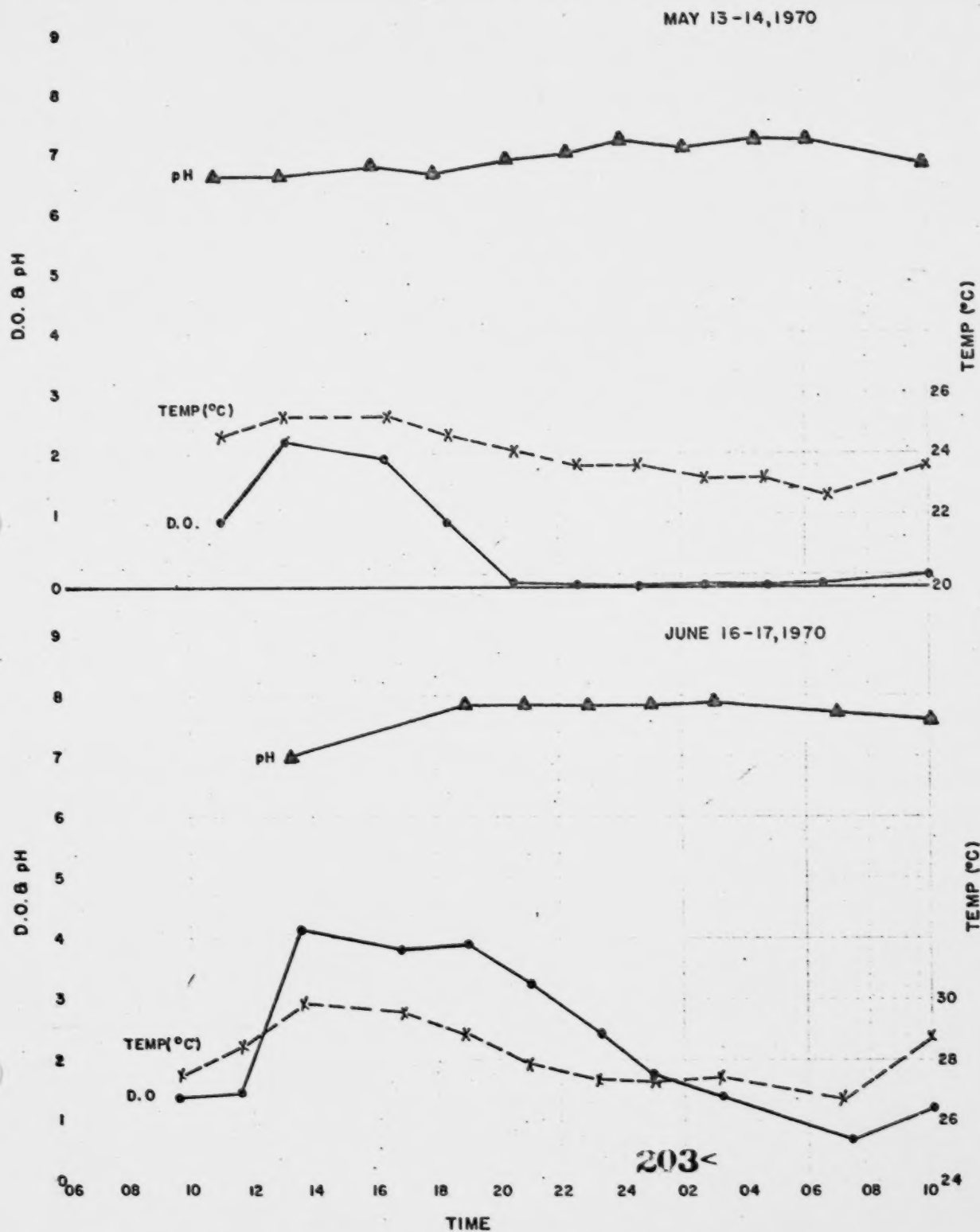
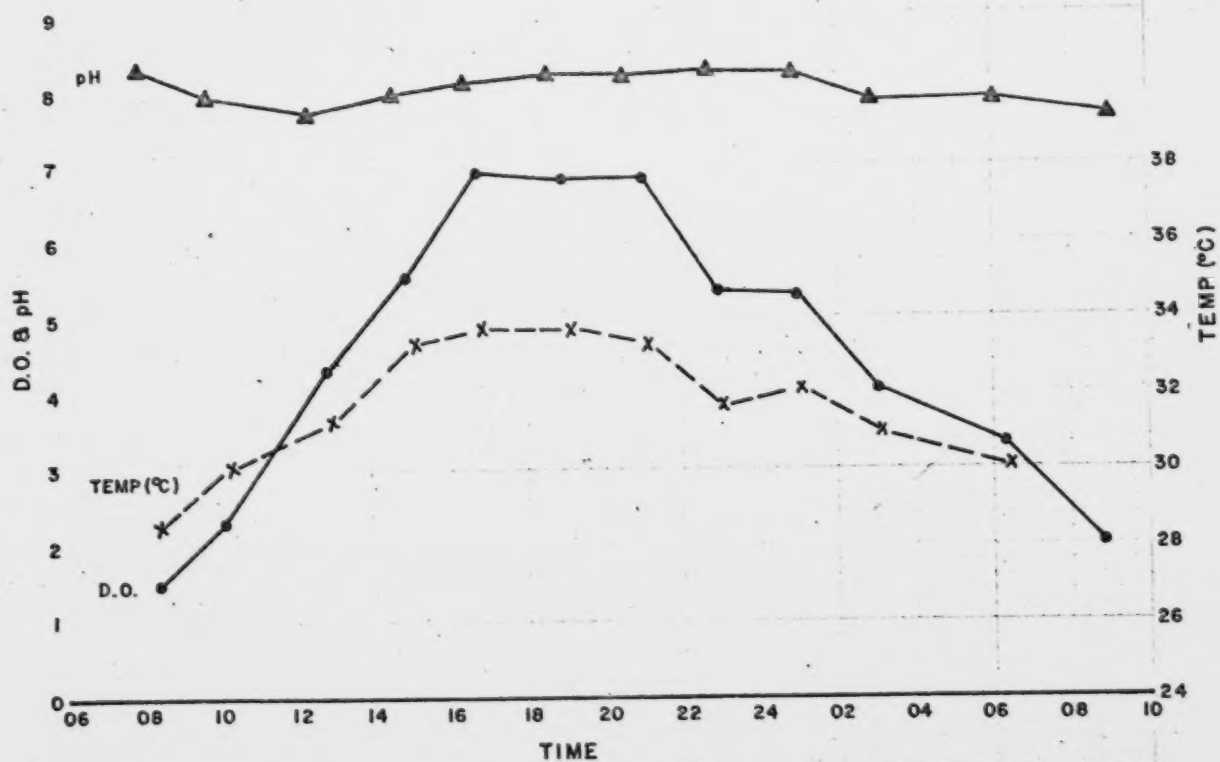


FIG. C-12
 DISSOLVED OXYGEN (ppm),
 TEMP (°C) AND pH DATA AT
 STATION 10
 EVERGLADES JETPORT STUDY

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FIG. C-13
DISSOLVED OXYGEN (ppm),
TEMP. (°C) AND pH DATA AT
STATION 10
EVERGLADES JETPORT STUDY

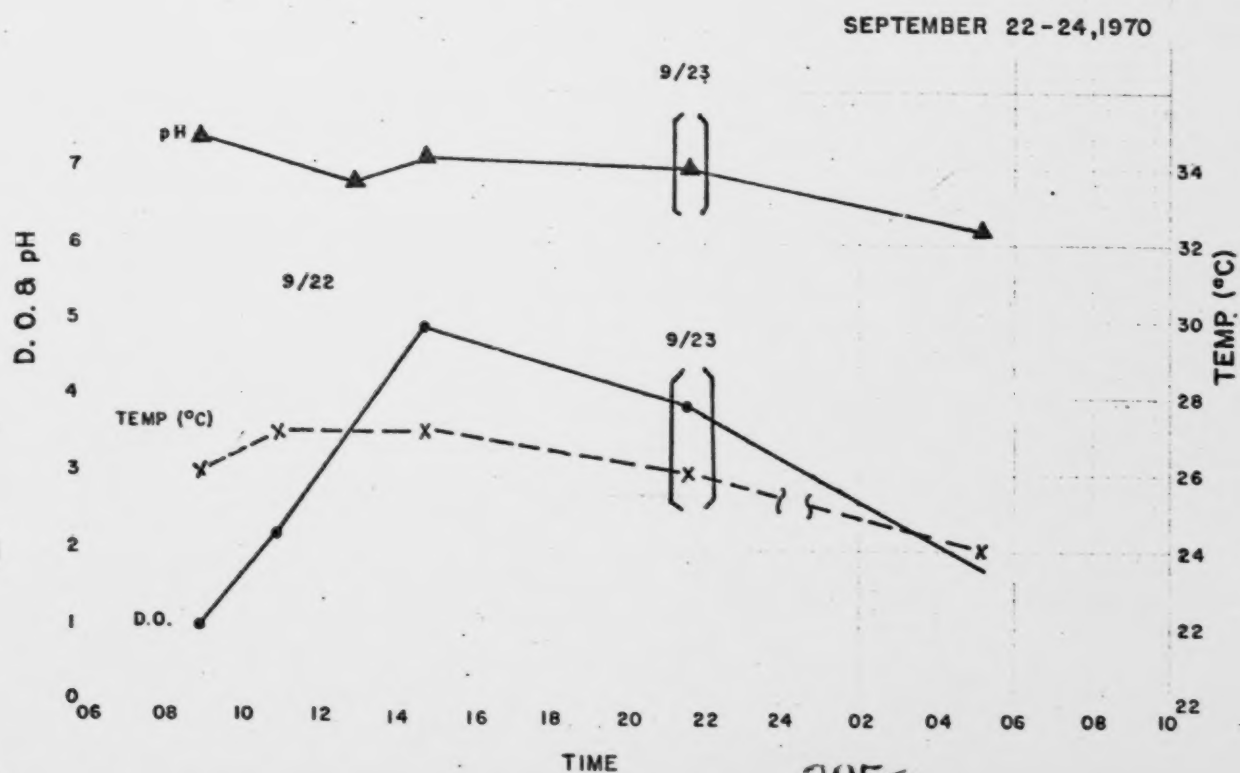
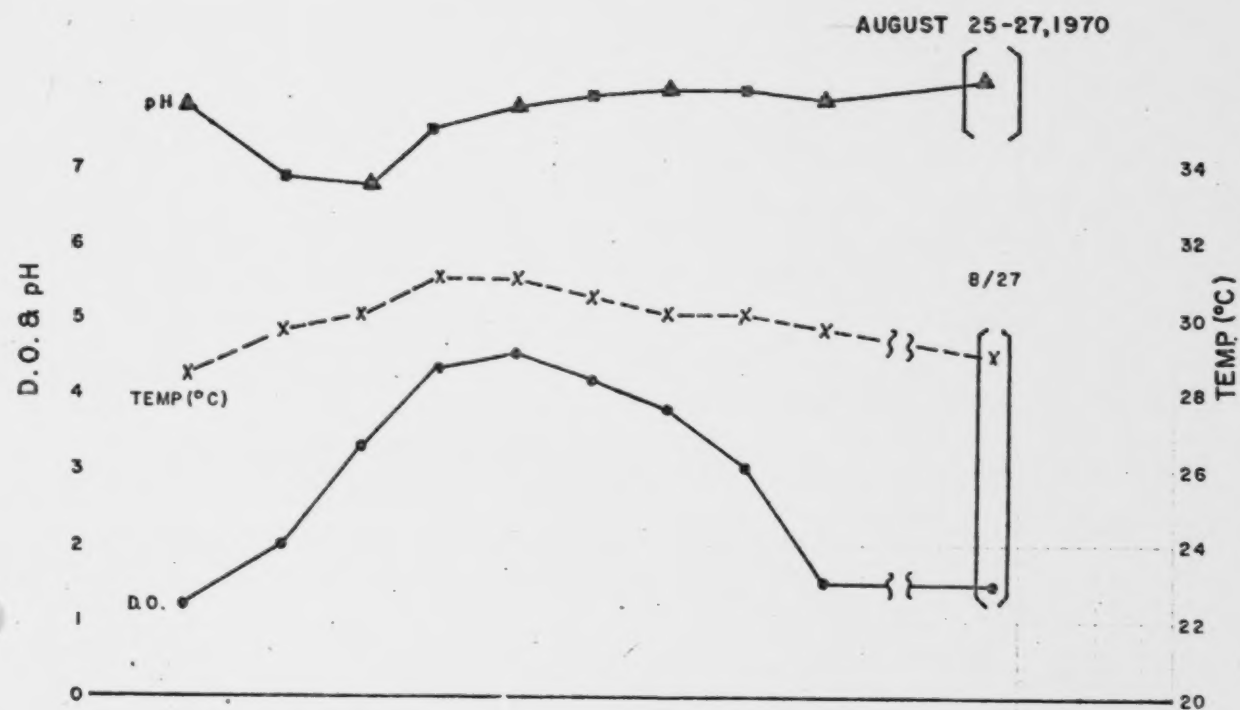


FIG. C-14

DISSOLVED OXYGEN (ppm),
AND TEMP. (°C) DATA AT
STATION 10
EVERGLADES JETPORT STUDY

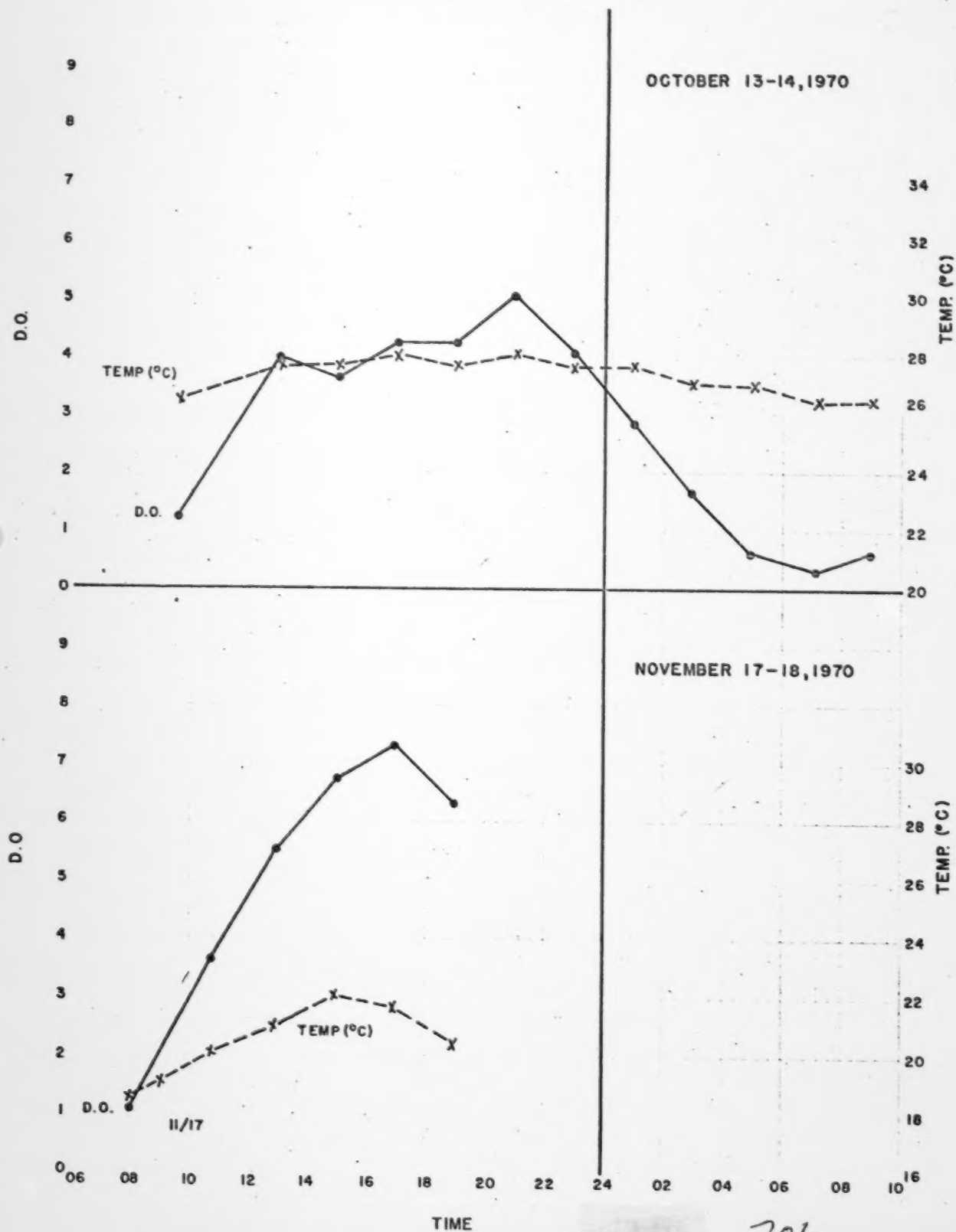
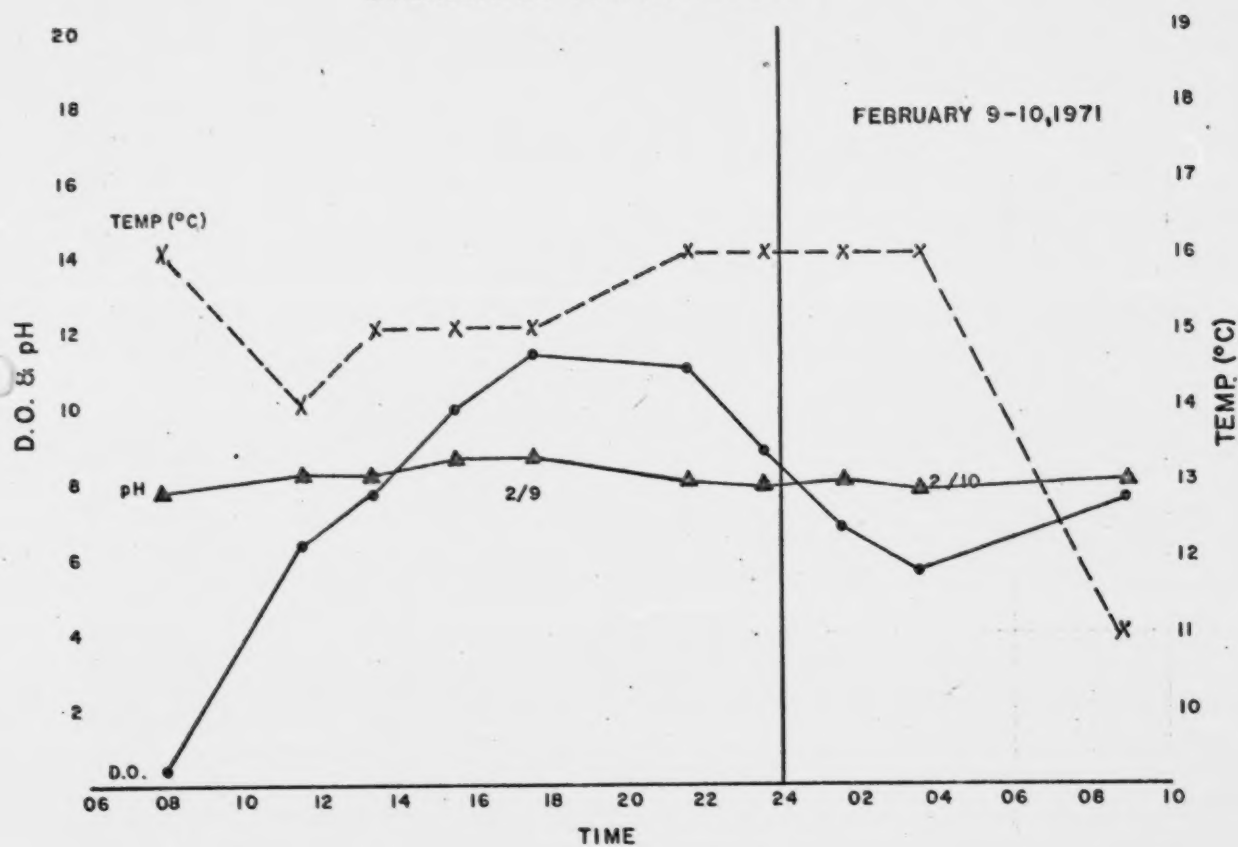


FIG. C-15
 DISSOLVED OXYGEN (ppm),
 TEMP (°C) AND pH DATA AT
 STATION 10
 EVERGLADES JETPORT STUDY



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